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Western Mining in the Twentieth Century Series

THE KNOXVILLE MINING DISTRICT, THE McLAUGHLIN GOLD MINE,
NORTHERN CALIFORNIA

Volume VII

Jack E. Thompson, Jr.	GENERAL MANAGER, McLAUGHLIN MINE, 1981-1988
Twyla Thompson	COUNTY SUPERVISOR, YOLO COUNTY, 1975-1985
Avery Tindell	CAPAY VALLEY ENVIRONMENTALIST
John Turney	McLAUGHLIN METALLURGIST: PIONEERING AUTOCLAVING FOR GOLD
Della Underwood	KNOXVILLE RANCHER, McLAUGHLIN MINE SURVEYOR
Walter Wilcox	COUNTY SUPERVISOR, LAKE COUNTY, 1979-1995
Peter Scribner	BOYHOOD AT THE KNOXVILLE MINE, 1941-1944

With an Introduction by
Duane A. Smith

Interviews conducted by
Eleanor Swent
in 1993, 1994, 1995, 1997, and 1999

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Jack E. Thompson, Jr. (b. 1950), general manager, McLaughlin Mine, 1979-1988: discusses Cuban childhood, work for Newmont Mining Co. at Stewart, BC, and Dawn, WA; McLaughlin Mine, feasibility study, recruiting staff, obtaining permits, mine development and operation, introduction of computer technology. Twyla Thompson (b. 1930), Yolo County supervisor, 1975-1985: discusses Cache Creek gravel mining, Capay Valley master plan, Environmental Data Advisory Committee, granting mine permits. Avery Tindell (b. 1920), retired insurance company chairman, member of Yolo County Technical Review Panel: discusses community environmental concerns. John Turney (b. 1951), Homestake metallurgist: recounts research on commercial continuous autoclave and pressure oxidation treatment of refractory gold ores; designing, building, operating McLaughlin processing plant. Della Underwood (b. 1943), rancher, Homestake mine engineering technician: memories of growing up at Knoxville, ranching, working on blasting crew, survey team. Walter Wilcox (b. 1928), motel owner/operator, Lake County Supervisor, 1979-1995: recalls labor union and business experience, mine permitting, changes in Lake County employment, infrastructure. Peter Scribner (b. 1933), construction engineer: recollections of childhood at Knoxville, 1941-1944.

Introduction by Duane Smith, Professor of History and Southwest Studies, Ft. Lewis College, Durango, CO.

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1993-1999

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INTRODUCTION TO KNOXVILLE/McLAUGHLIN PROJECT by Duane A. Smith

Imagine, if you would, what it would be like to have a series of interviews from people of all walks of life from a nineteenth century mining town and district--for example, a Fiddletown, California; a Silver City, Idaho; or a Caribou, Colorado. Would it not be exciting to "hear" first hand the stories of miners, store owners, lawyers, teachers, and a variety of other folks that make up the mining West?

Such a series of interviews would be the perfect answer to the Roman statesman, orator, and philosopher, Marcus Tullius Cicero, who observed more than 2,000 years ago: "History is the witness that testifies to the passing of time; it illuminates reality, vitalizes memory, provides guidance in daily life, and brings us tidings of antiquity." Imagine, then, what the Knoxville/McLaughlin oral history project is going to mean to future generations.

The Knoxville, California, mining district has a long mining history. It started in the 1860s with mercury mining and continued into the 1990s with Homestake Mining Company's McLaughlin gold mine. Under the guidance of Eleanor Swent, and as part of the Regional Oral History Office's Western Mining in the Twentieth Century series, a comprehensive oral history project of this mining district was launched in 1993. These fascinating and significant volumes are the finished projects.

While obviously impossible to go back beyond the turn of the century, interviews were conducted with miners, ranchers, journalists, teachers, and merchants who were in the district before the arrival of Homestake. The words of these people provide an exciting look at a district in transition and decline. Then came Homestake and their world changed.

Some gold mines had been operated here in the nineteenth and twentieth centuries, but they were nothing like what occurred when a major mining company became interested. Homestake's geologists found enough gold to warrant development. The concept would be an open pit mine and mill that would impact Napa, Lake, and Yolo Counties in northern California for a generation and provide for the future.

Five and one-half years went into planning for the McLaughlin gold mine, including 327 approvals needed for the mine's development. Not only were some mining ideas new and ground breaking, but the operation was sitting in one of the most environmentally aware states in the country. Homestake spent over \$283 million in start-up costs, before mining commenced in March 1985. The first year's production of 83,836 ounces of gold showed that the planning and work had been worthwhile from a dollars-and-cents aspect. Homestake was proud of its operation.

"The McLaughlin mine is the site of the first successful commercial application of the autoclave processing technology for extracting gold from ores. The operation began production in 1985 and is a showcase for environmental responsibility."

Homestake would continue to mine the pit into 1996 when mining ceased, except for processing previously stockpiled lower-grade ore to be worked for approximately another eight years, "using a conventional direct cyanide leach process." Reclamation, which has been conducted simultaneously with mining, would also continue into the next century. As Homestake's annual report in 1995 stated, "Reclamation of mine waste dumps is scheduled for completion in the latter part of 1996 with the final placement of top soil and hydroseeding. The planting of oak trees and other indigenous vegetation will continue seasonally until the area is completely reclaimed."

All this makes the oral history project that much more exciting; it was conducted while the district still operated and memories were fresh and riveted on a host of topics and concerns. This multi-volume series covers almost every conceivable aspect and impact--it is a monument to a refreshing, innovative way of approaching mining history.

These volumes provide a case study of twentieth century mining, environmental issues, and regional concerns, the successes, failures, tensions, and developments that go to make up a 1980s and 1990s mining operation and the people involved from all walks of life. They are a gold mine of primary documentation and personal memories of an era that is passing into history. A perusal of the table of contents will give the reader an idea, but the interviews need to be "assayed" carefully to grasp the whole story of what went on at the McLaughlin mine and why its impact was so significant. This is a "high grade" effort all the way.

Cicero would be proud. These volumes do illuminate reality, vitalize memory, and provide guidance in daily life. Without question, they testify to the passing of time and will eventually bring "us the tidings of antiquity."

Duane A. Smith
Professor of History and
Southwest Studies

September 1997
Fort Lewis College
Durango, Colorado

PROJECT HISTORY--Knoxville District/McLaughlin Mine Oral History Project

The development of the McLaughlin gold mine in the Knoxville District of Napa, Lake, and Yolo Counties in California in the last quarter of the twentieth century was a historically significant event. The mines of the district had been major producers of mercury since 1861. In 1888 an official report by G. F. Becker on the quicksilver deposits mentioned the presence of free gold which could be obtained by panning. It took almost a century before this knowledge could be acted upon when Homestake Mining Company signed an agreement with James William Wilder, owner of the Manhattan Mine, in 1978.

Advisors to the oral history series on Western Mining in the Twentieth Century¹ who were also Homestake directors, Professor Douglas Fuerstenau, principal faculty advisor, Clifford Heimbucher, and John Kiely, all urged the Knoxville/McLaughlin oral history project, as did advisor Sylvia McLaughlin, widow of the Homestake chairman for whom the mine was named. It was decided it should be a community oral history, in contrast to the previous volumes in the series which documented individual careers.

The five historically important aspects are: the history of the Knoxville mercury mining district, with its periodic booms and busts; the effects of a large industrial development and influx of technically trained workers in an economically depressed rural area; the efforts to obtain permits to develop a mine near a center of environmental activism; the continuous pressure oxidation system which was pioneered at the McLaughlin processing plant; the reclamation of the mine site. The life of the McLaughlin mine was projected to be about twenty years, and most of the key players were available for interviews. It is a nearly unique opportunity to document the discovery, development, and closing down of a mine while it is happening.

The history of the Knoxville District begins in 1861 with the incorporation of the Redington quicksilver mine, also known as the XLCR or Knoxville mine, then employing as many as 300 men. The town of Knoxville had thirty or more buildings, including a store, hotel, postoffice, Wells Fargo office, school, and cemetery. In 1872 the state legislature transferred prosperous Knoxville Township from Lake County to Napa County, although it is separated from the Napa Valley by mountain escarpments. Lake County was compensated with a one-time payment of \$3500.

¹ Information on the Western Mining in the Twentieth Century oral history series appears in the Appendix, page 543.

In 1869 Richard Knox and Joseph Osborne opened the Manhattan Mine on the same lode as the Redington. The Oat Hill or Napa Consolidated Mine was opened in 1872. A report on the metallurgy of quicksilver issued by the Department of the Interior in 1925 says, "In 1874, the Knox continuous shaft-furnace for the treatment of both fine and coarse ores was first used in California." [Bulletin 222, p. 5] The Knox-Osborne design was further augmented by a fine-ore natural-draft furnace developed by mine superintendent Charles Livermore. The district prospered until 1905, for a decade around World War I, and from 1927-1936. Demand for mercury rose during wartime because it was used as a detonator for explosives.

Knoxville was linked by road through Sulphur Canyon with the town of Monticello in fertile Berryessa Valley. Farmers descended from early Scots settlers grew pears, prunes, wheat, and barley and occasionally worked in the mercury mines. After World War II, when California's population was growing rapidly, a dam was built which by 1956 flooded the valley to create Lake Berryessa. It attracted vacationers, and for most of them it was the end of the line. The unpaved road from Lake Berryessa to Knoxville was impassable when rains filled the creek bed. In the other direction, from Knoxville to Clearlake, there was a similar little-used road through Morgan Valley.

Although it is only a few miles from the densely populated San Francisco Bay Area, in 1978 Knoxville township had few telephones, surfaced roads, or bridges. Populated by ranchers, miners, seasonal hunters, and outlaws, it was one of the most economically depressed regions in California, with high unemployment. In 1991, Napa historian Robert McKenzie called it "truly the last frontier of Napa County."

The chronology of the McLaughlin Mine is as follows: in 1961, following publication of a Professional Paper by USGS geologist Ralph J. Roberts, Newmont geologists John S. Livermore and J. Alan Coope found a major deposit of micron-sized gold on the Carlin trend in Nevada. It was economic to mine because of technological advances in explosives and earth-moving equipment, and development of new methods such as heap-leaching for recovery of gold from ore. This led other mining companies to search for similar deposits of "invisible" gold.

In 1969, the National Environmental Protection Act was passed, followed in 1970 by the California Environmental Quality Act.

In the 1970s, "Bill" Wilder, principal of the One Shot Mining Company, was reclaiming batteries for Mallory Company in the furnaces at the Manhattan mercury mine. Environmental concerns had made mercury mining unprofitable, so Wilder was crushing the beautiful colored rock on his property and selling it as decorative stone. An assay from several years before had showed gold was there, but at that time mercury at \$75 a flask was more valuable than gold at \$35 an ounce, the official

price from January 1934, when the United States went off the gold standard, until 15 March 1968.

In August 1971, President Richard Nixon terminated the convertibility of the dollar into gold, and the price climbed to \$800 an ounce in 1980. In 1977, Homestake Mining Company underwent a restructuring and embarked on a program to find a world-class gold mine. Their search revealed geology reports in their files from the 1920s which encouraged exploration at hot springs near the Knoxville mercury mining district of northern California. In 1978 Donald Gustafson, Homestake geologist, visited the Manhattan Mine at the place where Napa, Yolo, and Lake Counties meet. A drilling program revealed an epithermal gold deposit which at this juncture remains unique; no extension or replica has been found in the Great Valley geologic sequence or the Coast Range thrust which were exposed at McLaughlin.

Mining companies are familiar with developing mines in remote and rugged locations, with the attendant logistical problems. In this case, there was the further challenge of obtaining permits to develop a mine in the jurisdiction of three counties, regional and state water quality districts, three regional air quality districts, various state agencies, and the Bureau of Land Management. It took more than five years and cost millions of dollars to secure the 327 required permits which made a stack of paper more than eight feet high. In addition, the ore itself was finely disseminated, fairly low grade, and as it turned out, highly refractory. Traditional methods of beneficiation were ruled out by environmental concerns, so Homestake metallurgists developed a high pressure oxidation system, incorporating technology from South Africa, Germany, Canada, and Finland, which has now been widely copied.

The eventual design was for a mine pit with adjacent crushing plant and a five-mile pipeline to conduct slurry to a zero-discharge processing plant using a variety of technologies, including autoclaves. Reclamation in the mine and on dumps began almost immediately, and at the end of the mine's life, it will be a part of the Nature Reserve system of the University of California, for research by scholars at both the Berkeley and Davis campuses.

In 1991, the Regional Oral History Office began to explore possibilities for funding the Knoxville/McLaughlin oral history. A four-year project was outlined to include about thirty-five interviews averaging three hours each, for a total cost of \$100,000, resulting in a set of volumes covering the mercury mining, the gold mining, and the resulting changes in the surrounding community. The Hearst Foundation granted \$20,000 to document the gold mine, and the Mining and Metallurgical Society of America gave \$6,000 to document the earlier mercury mining. Homestake and Chemical Lime Company each donated \$2,000, which enabled interviewing to begin in March, 1993.

The best laid plans, however, can be changed by circumstances beyond control. One of the first names on the list of interviewees was John Ransone, Homestake's construction project director. He sent helpful background documents in preparation for a scheduled interview; however, before it could be held he died of lung cancer. The project manager for the construction company, Klaus Thiel, in the meantime had been assigned to work in Brisbane, Australia, so he could not be interviewed. Several of the other Homestake people had scattered: James Anderson to Denver, Jack Thompson and John Turney to British Columbia, David Crouch to Salt Lake City, Donald Gustafson to jobs in Namibia and Kazakhstan, Joseph Strapko to Maine. William Humphrey and Richard Stoehr both underwent major surgery. Nevertheless, interviews were conducted with these and others involved in the development and operation of the mine.

Although similar difficulties occurred on the list of community leaders, by 1996 interviews had been conducted with a county supervisor from each of the three counties involved, Napa County planners, the Lake County school superintendent, community historians and pioneers, merchants, and ranchers. Some of the most vocal opponents of the mine were also interviewed.

There is a perception that the former mercury miners are all dead, killed by mercury poisoning. In fact, Dean Enderlin, a geologist at the McLaughlin Mine and also a Napa County native and historian, helped to locate some who were remarkably healthy, and who were interviewed. Elmer Enderlin in his eighties spends summers working at his tungsten prospect in Idaho and winters in Lower Lake. Anthony Cerar, also in his eighties, at the time of interviewing still actively maintained several historic mercury mines, including La Joya and Corona. William Kritikos, operator of the Oat Hill Mine, was nearly seventy-three when he died following a stroke, but was in good health at the time of his interview. Ed McGinnis, who worked around the Reed Mine as a boy, is still active in his seventies. Bill Wilder, who owned the Manhattan Mine, is a relative youngster in his seventies and in good health in Upper Lake.

The project comprises forty-seven interviews in all. Four of the interviews were completed as separate volumes: William A. Humphrey, Mining Operations and Engineering Executive for Anaconda, Newmont, Homestake, 1950-1995, Hugh C. Ingle, Jr., Independent Small Mines Operator, 1948 to 1999; Corona Mine, Patrick Purtell, Maintenance and Management at the McLaughlin Mine, 1985 to 1997, and James William Wilder, Owner of One Shot Mining Company and Manhattan Mercury Mine, 1965-1981. They are bound individually. Subsequent oral histories in the project will be bound into volumes containing more than one interview, arranged generally in alphabetical order. Supplementary documents are included as appropriate; Volume I contains general information. It is expected that researchers will refer to the entire set for a comprehensive account of the McLaughlin Mine.

We are grateful to all of the interviewees for their participation. There are many others who have helped also. Homestake Mining Company has supported the project not only with funds, but also in lending the Regional Oral History Office a computer and printer, and making available for research the archival video tapes and files of newspaper clippings and news releases, as well as the environmental studies, the environmental impact report, and the environmental impact statement. Early on, a day tour of the property and box lunch were provided for a van load of ROHO staff, interested students, and faculty from the University of California at Berkeley. The conference room at the mine and the San Francisco offices at 650 California Street have been used for interviewing.

James Jensen made available his extensive files on mercury mining and processing and mercury poisoning. Anthony Cerar led a vigorous hike around the Knoxville mine site, identifying foundations of long-gone buildings and workings. John Livermore conducted a tour by jeep of the Knoxville district, and suggested the importance of the Morgan North papers at The Bancroft Library. Staff members gave help at the Napa Register, the Napa Museum, the Sharpsteen Museum in Calistoga, and the Lake County Museums in Lower Lake and Lakeport. Professor Duane Smith, mining historian at Ft. Lewis College, Durango, Colorado, wrote an introduction for the Knoxville/McLaughlin Mine oral history project. Professor Greg Wheeler of Sacramento State University has given valuable advice, and staff members of the California Division of Mines and Geology Les Youngs, Ron Churchill, and Kathleen Twomey have provided photos and graphs. Dean Enderlin provided valuable supplementary documents. Mrs. George F. Clark provided photographs taken by her husband in 1983-1985.

The tapes of all the interviews are available for study at The Bancroft Library. The completed volumes will be available at The Bancroft Library and in the Special Collections at UCLA.

Eleanor Swent, Project Director
Knoxville District/McLaughlin Mine
Oral History Project

February 1998
Regional Oral History Office
The Bancroft Library
University of California, Berkeley

Knoxville District/McLaughlin Mine Oral History Project

William Humphrey, *Mining Operations and Engineering Executive for Anaconda, Newmont, Homestake, 1950 to 1995, 1996*

Hugh C. Ingle, Jr., *Independent Small Mines Operator, 1948 to 1999; Corona Mine, 2000*

Patrick Purtell, *Maintenance and Management at the McLaughlin Mine, 1985 to 1997, 1999*

William Wilder, *Owner of One Shot Mining Company: Manhattan Mercury Mine, 1965-1981, 1996*

The Knoxville Mining District, The McLaughlin Gold Mine, Northern California, Volume I, 1998

Anderson, James, "Homestake Vice President-Exploration"

Baker, Will, "Citizen Activist, Yolo County"

Birdsey, Norman, "Metallurgical Technician, McLaughlin Process Plant"

Bledsoe, Brice, "Director, Solano Irrigation District"

The Knoxville Mining District, The McLaughlin Gold Mine, Northern California, Volume II, 1998

Cerar, Anthony, "Mercury Miner, 1935-1995"

Ceteras, John, "Organic Farmer, Yolo County"

Conger, Harry, "President, Chairman, and CEO, Homestake Mining Company, 1977 to 1994"

Corley, John Jay, "Chairman, Napa County Planning Commission, 1981 to 1985"

Cornelison, William, "Superintendent of Schools, Lake County" (Includes an interview with John A. Drummond, Lake County Schools Attorney)

The Knoxville Mining District, The McLaughlin Gold Mine, Northern California, Volume III, 1998

Crouch, David, "Homestake Corporate Manager-Environmental Affairs"

Enderlin, Elmer, "Miner in Fifty-Eight Mines"

Fuller, Claire, "Fuller's Superette Market, Lower Lake"

Goldstein, Dennis, "Homestake Corporate Lawyer"

Guinivere, Rex, "Homestake Vice President-Engineering"

The Knoxville Mining District, The McLaughlin Gold Mine, Northern California, Volume IV, 1998

Gustafson, Donald, "Homestake Exploration Geologist, 1975-1990"

Hanchett, Bonny Jean, "Owner and Editor, Clearlake Observer, 1955-1986"

Hickey, James, "Director of Conservation, Development, and Planning for Napa County, 1970 to 1990"

Jago, Irene, "The Jagos of Jago Bay, Clear Lake"

Jonas, James, "Lake County Fuel Distributor"

Koontz, Dolora, "Environmental Engineer, McLaughlin Mine, 1988-1995"

The Knoxville Mining District, The McLaughlin Gold Mine, Northern California, Volume V, 1998

Kritikos, William, "Operator, Oat Hill Mine"

Landman, John, "Rancher, Morgan Valley"

Lyons, Roberta, "Journalist and Environmentalist"

Madsen, Roger, "Homestake Mechanical Engineer"

Magoon, Beverly, "Merchant and Craft Instructor, Lower Lake"

McGinnis, Edward, "Worker at the Reed Mine"

The Knoxville Mining District, The McLaughlin Gold Mine, Northern California, Volume VI, 1999

McKenzie, Robert, "McKenzies in Monticello, Berryessa Valley"

Moskowitz, Harold, "Napa County Supervisor"

Onstad, Marion, "Neighbor and Employee of the McLaughlin Mine, 1980-1994"

Parker, Ronald, "Resident Manager of the McLaughlin Mine, 1988-1994"

Stoehr, Richard, "Homestake Engineer and Geologist to Senior Vice President and Director"

Strapko, Joseph, "Exploration Geologist, McLaughlin Mine Discovery, 1978"

The Knoxville Mining District, The McLaughlin Gold Mine, Northern California, Volume VII, 2000

Jack E. Thompson, Jr., "General Manager, McLaughlin Mine, 1981-1988"

Twyla Thompson, "County Supervisor, Yolo County"

Avery Tindell, "Capay Valley Environmentalist"

John Turney, "McLaughlin Metallurgist: Pioneering Autoclaving for Gold"

Della Underwood, "Knoxville Rancher, McLaughlin Mine Surveyor"

Walter Wilcox, "County Supervisor, Lake County"

Peter Scribner, "Knoxville Mine"

Knoxville/McLaughlin Interviews in Process:

Enderlin, Dean, "Mine Geologist, Reclamation Manager, McLaughlin Mine"

Harrison, Susan, "McLaughlin Natural Reserve"

Krauss, Raymond, "Environmental Manager, McLaughlin Mine"

Regional Oral History Office
The Bancroft Library

University of California
Berkeley, California

Western Mining in the Twentieth Century Series
Knoxville/McLaughlin Project

Jack E. Thompson, Jr.

GENERAL MANAGER, McLAUGHLIN MINE, 1981-1988

An Interview Conducted by
Eleanor Swent
in 1993 and 1994

Since 1954 the Regional Oral History Office has been interviewing leading participants in or well-placed witnesses to major events in the development of Northern California, the West, and the Nation. Oral history is a method of collecting historical information through tape-recorded interviews between a narrator with firsthand knowledge of historically significant events and a well-informed interviewer, with the goal of preserving substantive additions to the historical record. The tape recording is transcribed, lightly edited for continuity and clarity, and reviewed by the interviewee. The corrected manuscript is indexed, bound with photographs and illustrative materials, and placed in The Bancroft Library at the University of California, Berkeley, and in other research collections for scholarly use. Because it is primary material, oral history is not intended to present the final, verified, or complete narrative of events. It is a spoken account, offered by the interviewee in response to questioning, and as such it is reflective, partisan, deeply involved, and irreplaceable.

All uses of this manuscript are covered by a legal agreement between The Regents of the University of California and Jack E. Thompson, Jr., dated July 21, 1993. The manuscript is thereby made available for research purposes. All literary rights in the manuscript, including the right to publish, are reserved to The Bancroft Library of the University of California, Berkeley. No part of the manuscript may be quoted for publication without the written permission of the Director of The Bancroft Library of the University of California, Berkeley.

Requests for permission to quote for publication should be addressed to the Regional Oral History Office, 486 Library, University of California, Berkeley 94720, and should include identification of the specific passages to be quoted, anticipated use of the passages, and identification of the user. The legal agreement with Jack E. Thompson, Jr., requires that he be notified of the request and allowed thirty days in which to respond.

It is recommended that this oral history be cited as follows:

Jack E. Thompson, Jr., "General Manager, McLaughlin Mine, 1981-1988," an oral history conducted in 1993 and 1994 by Eleanor Swent in *The Knoxville Mining District, The McLaughlin Gold Mine, Northern California, Volume VII*, Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 2000.

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INTERVIEW HISTORY--Jack E. Thompson, Jr.

Jack Edward Thompson, Jr., was hired in 1979 to direct the feasibility study for the McLaughlin Mine project, and later became its first operations manager and general manager. His name was of course one of the first on the list of interviewees invited to participate in the Knoxville District/McLaughlin Mine oral history. Thompson's story rounds out the picture of the McLaughlin Mine not only as a corporate venture and a technical accomplishment, but also as an element in a community. His skill in introducing the mine to the people of Napa, Lake, and Yolo Counties was critically important in its development. He left the McLaughlin Mine in 1988 to serve as president and CEO (Chief Executive Officer) of Homestake Canada; in 1994 he became president and COO (Chief Operating Officer) and later CEO of Homestake Mining Company, and in 1999, chairman and CEO of Homestake.

He agreed early on to be interviewed, but at that time was working and living in Vancouver, so interviews were scheduled when he was in San Francisco on business. We met on July 21, 1993, and March 23, 1994, in the Homestake offices at 650 California Street. Jack was very much at ease with being interviewed here. We sat in a conference room with large windows overlooking San Francisco's financial district; his photograph in this same setting has appeared in annual reports, newspaper and journal articles, and videos. He is a handsome man, physically fit and rather tall, a fluent speaker, gracious and able to put people at ease. He is young to be head of a corporation, but he is not immature. Although some of the information in this oral history deals with material he has probably discussed countless times, he still came to it with freshness and enthusiasm.

His father, Jack E. Thompson, Sr., was an American engineer working in Cuba when his son was born in 1950. As a result of the Castro revolution, the family fled to New York. Jack, Jr., tells in his oral history of listening to Fidel Castro's long speeches, and later suffering some of the trauma of a refugee. He gives credit to the Boy Scouts; he himself became an Eagle Scout and is still active in Scouting. His father was hired by Newmont Mining Company and eventually became president of that company. Jack, Jr., graduated from the University of Arizona in mining and worked for Newmont in Arizona, Canada, and Washington before coming to Homestake. In his oral history, he tells how these previous experiences fed into his success at the McLaughlin Mine.

He tells how he made the decision to come to work at the McLaughlin:

What really did it for me was the fact that it was an opportunity to be involved with a project from the ground up, where all we had was the drill data and we had to calculate the

ore reserves, design the mine, construct it, and then run it. And really that's what every mining engineer dreams about.

Jack Thompson does not emphasize his public relations work during the early days of the mine development, just that he "probably gave thirty different talks in those couple of years." Others in their oral histories have said that his talks to Rotary Clubs and other community groups were extremely influential in allaying anxieties aroused by the mining.

He enjoys remembering the construction phase of the mine:

I look back on that period of time as a very fun period that was very rewarding. Even if I went on a short trip, like a couple of days, and I'd come back and I'd say, "Wow, look!" There would be physical progress. The building would now have sides on it or something, or a foundation would now have a piece of equipment on it. Literally before your eyes. If things got kind of rough around the office or too busy or something, I'd just go out for a walk around the plant and see how things are going....boy, when you see something like the McLaughlin project and you say, "I had something to do with this," it's very rewarding. It really is.

He recalls some of the technical problems, especially with the crushing of the ore, and says,

...that's one area I wish we had done a better job on....But the environmental protection has worked. The reclamation now we're winning all sorts of awards for....we knew that we would never be able to get around the fact that we're digging a big hole in the ground, so what we were trying to do, we had all these acres around there, thousands of acres, and we said, "Look, we're going to improve the overall land quality, by range management and fire management and planting more rare plants and all these kinds of things, creating wildlife refuges, to offset the deduct that we're going to create in the middle.

....A hole in the ground is a hole in the ground. But if you look at the total picture of the whole area, we're going to improve it. We'll leave it better than it was before. And we've cleaned up all those mercury mines and everything else that were there before. There were some problems there, historical problems, from surface contamination and contamination of the waters, and we've fixed that.

He pays tribute to the guidance of then-president Harry Conger:

I give the credit to Harry. He wanted to do this right....At the very beginning he said, "You will meet or exceed the environmental rules and regulations that exist." He wanted this to be a showcase.

When the interview process was complete, the tapes were transcribed in the Regional Oral History Office and the lightly edited transcript was sent to Jack Thompson for review. He made a few minor clarifications of diction and returned the transcript promptly in March 1995. The manuscript was amended and indexed at our office. The tapes are deposited in The Bancroft Library and are available for study.

The Jack E. Thompson, Jr., interview is one of more than forty interviews which were conducted by the Regional Oral History Office from 1993-1999 in order to document the development of the McLaughlin gold mine in the Knoxville District of Lake, Napa, and Yolo Counties, California, from 1978-1999, as part of the ongoing oral history series devoted to Western Mining in the Twentieth Century. The Regional Oral History Office was established in 1954 to record the lives of persons who have contributed significantly to the history of California and the West. The office is a division of The Bancroft Library and is under the direction of Willa K. Baum.

Eleanor Swent
Project Director, Research Interviewer/Editor

September 1999
Regional Oral History Office
The Bancroft Library
University of California, Berkeley

Regional Oral History Office
Room 486 The Bancroft Library

University of California
Berkeley, California 94720

BIOGRAPHICAL INFORMATION

(Please write clearly. Use black ink.)

Your full name JACK EDWARD THOMPSON
 Date of birth 5 MARCH 1950 Birthplace HAVANA, CUBA
 Father's full name JACK EDWARD THOMPSON SR
 Occupation RETIRED Birthplace BEATRICE, NEBRASKA
 Mother's full name MARIA DEL CARMEN LARREA THOMPSON
 Occupation RETIRED Birthplace HAVANA, CUBA
 Your spouse LINDA ARLENE THOMPSON
 Occupation HOMEMAKER Birthplace PETALUMA, CA
 Your children HEATHER & MICHAEL

Where did you grow up? MATANZAS, CUBA AND MT. KISCO, NY

Present community ALAMO, CA

Education BS MINING ENGINEERING UNIV of ARIZONA '71

Occupation(s) MINING MANAGEMENT, CEO

Areas of expertise MINING, FINANCE, EXPLORATION, ETC, ETC

Other interests or activities READING, HISTORY, STAMP COLLECTING,
GOLF, JOGGING, MINE LAMP COLLECTING, MINING HISTORY BOOKS
& MEMORABILIA, TRAVEL

Organizations in which you are active CHAIRMAN WESTERN REGIONAL COUNCIL,
GOLD INSTITUTE, NATIONAL MINING ASS, WORLD GOLD COUNCIL

SIGNATURE

Jack Thompson

DATE: 1 Nov 2000

INTERVIEW WITH JACK E. THOMPSON, Jr.

I EARLY YEARS

[Interview 1: July 21, 1993] ##¹

Swent: All right, Jack. Let's begin at the beginning. Please tell where you were born, and a little background about your father and family.

Childhood in Cuba, 1950-1960

Thompson: All right. I was born in Cuba, which is a strange place for miners to come from, I guess, but actually, there is a mining industry in Cuba such as they exist nowadays. My father was a graduate of the Colorado School of Mines and had gone to Cuba working for a geophysical company that was exploring for oil. Didn't find any oil, but he found my mom, so he stayed and ended up working at a chemical plant.

Swent: What is your father's name?

Thompson: His name was Jack Thompson, also. I'm junior. People don't do that as much anymore, I don't think, but it never seemed to get in the way. The first ten years of my life were spent there in Cuba. When Castro came on January 1, 1959, we stayed for about eighteen months.

Swent: Let's get the date for your birth.

Thompson: Yes, I was born March 5, 1950, and I was born in Havana, Cuba, although we were living in Matanzas at the time. My mother wanted to have her first baby closer to where the medical help

¹## This symbol indicates that a tape or tape segment has begun or ended. A guide to the tapes follows the transcript.

was, so we were in Havana with her mother, my grandmother, until I came along. My dad worked for a chemical company that produced rayon fiber and rayon products. It was American-owned and when Castro came, of course, one of the things that happened was it got nationalized.

Swent: What was the name of the company?

Thompson: Dayton Hedges was the owner. I don't remember the name of the company; he was an entrepreneur. He owned two plants and we were the one in Matanzas, which was a free port, so there was export allowed without duties. And it was called La Rayonera, which means "the rayon plant", I guess you'd say. Initially we lived in Matanzas itself, downtown, and then not too long before we moved away, my dad got a promotion and we went to live in the company housing, which is right at the plant site. You had asked me earlier if I had recollections of that: I do have recollections of that time frame. I was going to a Catholic school. The nuns were quite strict; I remember that.

But most people generally ask me about if I remember anything about the revolution. There were a couple of incidents that I do remember. One time my dad had to go on a business trip and he was afraid to leave us behind because there was a lot of unrest in the cities, so he took us with him. We ended up driving through the town of Santa Clara right after it had been bombed by the air force, the government's air force. The town had been taken over by the rebels and then it was bombed and they had left and we drove through there quite rapidly, I remember. My folks were trying to prevent us from seeing anything, but we did see burned buildings and things like that.

Swent: So you were perhaps nine years old at that time?

Thompson: At that time, that's right. And we stayed at a hotel which had a thatch roof and this was in Pinal de Rio. I don't remember exactly the name of the hotel, but the week after we left it was burned to the ground by the rebels, so it was a real difficult time of the revolution.

I remember sitting in the window of our house--really it was like an apartment, one of those skinny flats, sort of single-floor small house, I guess, but contiguous, together. We had a common wall with our neighbors on both sides--watching the tanks go by in front of our street. And it was a cobblestone street so the cobbles were getting thrown up by the treads of the tanks. Reading about it later--of course I've read a lot about the history now--it was the final big push by

the government to send all their troops to the east to try to wipe out Castro, which failed. That was the end of the revolution.

I remember sitting there and my mom grabbing me from behind and just yanking me off and closing the shutters. Other than those kinds of incidents--when Castro took over, they put a machine gun nest on the plant security gate. Why, I don't know, but it was there. A couple of times we were taken and listened to Castro give talks, his interminable talks which he is famous for.

We would go play stickball in the back of the crowd because it was so long. But they'd empty all the schools. The reason he had such big crowds is that they made everybody go. The soldiers would come and they'd make the whole school go. They'd go to the stores and get everybody out, they'd go to the factories and get everybody out, and make them go to the square to listen to this talk.

Well, us kids, you know, we didn't pay much attention, but I do remember one time I'd say, "Well, let's go see what he looks like," so we crawled in legs and got all the way to the front, took a look at him, and said, "Okay, that's it." We went to the back and, at the end of it, didn't know what he was talking about, anyway. But we left about eighteen months after Castro came in.

Swent: Your Catholic school was--I don't know as much as I should about Castro--was he anti-Catholic? Did he put pressure--

Thompson: Oh, he had to be very careful about that because the country is probably 85 percent Catholic, or more. The other minority might be some of the African religions that existed. (Cuba had a high percentage of African descendants.) I believe that they sort of co-exist in a sense, even to this date, because he knows he really can't do anything about it.

What we did see as a direct consequence of the revolution, and really the reason my dad decided to leave, was that in Cuba they would give you the books for your next year at the beginning of the summer break and they'd give you assignments. You had reading to do over the summer so that when you came to school in the fall you were, you know, fired up and had done your assignments. Well, we got the books that they were planning to use the next year, and my dad took a look at them and says, "We're leaving," because there were, well, what you would expect, the beginnings of re-education, or indoctrination of the next generation. My dad just didn't want

anything to do with it, so we applied to leave, and when you do that, you lost a lot, in a sense. Any electrical appliances were taken from you, our car was taken, bank accounts were frozen. We ended up moving in and living with my grandmother because they took his house away. They didn't want him to leave, because he was a trained engineer and they needed those kinds of people. It took a long time. They would let him leave, but they wouldn't let the family leave, because we were Cuban natives.

Swent: Your mother must have had very mixed feelings about this.

Thompson: Well, sure. It was a very traumatic time for us.

Swent: Was your mother's family persecuted in any way?

Thompson: Not really. Well, one of them was, but it was probably more of a personality thing. She was a manager of a store, a woman manager of a store, in Cuba, which is amazing.

Swent: This is a relative?

Thompson: A relative, yes. She lost her job to a young man who was a Communist supporter. But other than that, no. Basically, it was more of a disappointment. My aunt, my mother's sister, was a very strong supporter of Castro and a major underground fund raiser. She would raise money to support the revolution in Havana. Her husband was a doctor.

Swent: So this is an ideological--

Thompson: Well, once things became apparent as to the direction it was going, it broke her heart. Eventually, just about everybody in my family left. It took maybe a decade, but--we were the first ones. And my dad said, you know, "You guys will be sorry," and they were. But with time, just about all my near relatives, anyway, left--some in more difficult circumstances than others. That aunt I was speaking about had six children and they sent out the oldest one to live with us for a couple of years and then the twins came, so all of the kids were out before they were allowed out. So they were separated from their family and those kinds of things.

We were more fortunate than most. My dad had a job before leaving Cuba. He called ahead and called a lot of friends from school and I think they made a job for him, I think, at Newmont, which is a mining company that's out of New York. So, you asked about the background and that's the gist of it.

Swent: Well, this is very interesting because this must have been pretty traumatic for a little boy to go through all this. There was a lot of stress in your family, I would assume.

Thompson: Yes, but you know, some of the things you remember is I remember losing my bed because we had all these relatives moving in our house.

Swent: This is after you arrived in New York that all the relatives--

Thompson: Yes, that's right. It was pretty crowded there for a while, but, yes.

I have a lot of respect for my uncle. He was a doctor who knew English but he didn't know medical English. And he closeted himself in our room (our room was my brother and I) and taught himself medical English and then took the competency exam and ended up working in Johns Hopkins. Tells you what kind of doctor he was. He's dead now, from lung cancer. He was a smoker; it's amazing how a doctor would do that, but that's what happened.

Swent: They didn't know at that time--

Thompson: Well, that's true, to some extent.

So, when I remember things that I was involved with and experiences I had and things of that sort, I probably didn't understand much of what was going on. Since then I've read a lot, read lots of books about the history from both sides. Now you can get a little bit of both sides. For a while it was all books that were mostly pro-Castro and then there were books that were against Castro. Now you get a little more balance. I guess time allows a little more of the passion to drop and a little more analytical approach to what he's done or not done.

Swent: And a little more balance on why he was so appealing.

Thompson: Yes, yes. You've got to give him credit; still there after all these years because he's done a lot of things right. On the other hand, they're having a lot of troubles right now with the economy totally destroyed and the real fear for famine right now. I really think that that's something that we'll probably not ignore and can't ignore if it gets to that.

New York, 1960-1967

Thompson: Anyhow, we were in the States now. We were in New York like a lot of other Cuban refugees.

Swent: New York City.

Thompson: Yes, New York City. We lived there for a while and then my folks moved out to one of the suburbs.

Swent: Your father then began to work with Newmont Mining.

Thompson: That's right. He worked with Newmont throughout the rest of his career.

Swent: Was he a mining engineer with Newmont?

Thompson: He was a mining engineer. His initial job, I think, was like assistant to the president or something like that. Basically, he was in a staff position, doing special assignments, and then he moved into management.

Swent: Was Plato the president then?¹

Thompson: Yes, at the time.

Swent: Plato Malozemoff. Had he known him before?

Thompson: I don't know. It's a different--well, not quite a different generation. Plato's probably ten or fifteen years older than my dad.

Swent: He had no Colorado connection.

Thompson: No, I don't think so. He was Berkeley.

Swent: Cal, Berkeley, and Montana--graduate work at Montana.

¹Plato Malozemoff, A Life in Mining: Siberia to Chairman of Newmont Mining Corporation, 1909-1985, an oral history interview conducted by Eleanor Swent in 1987 and 1988, Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 1990.

- Thompson: No, the folks that really looked after my dad were the McQuistons, Frank McQuiston in particular. How they met I don't know.¹
- Swent: Frank was a metallurgist.
- Thompson: World-renowned metallurgist, really. Eventually my dad ended up in a line position, in charge of operations. And when he finally retired, he was president of the company. He retired early, following a combination of events. There was a takeover of a company, but he was also ready for it. My mother is older than my dad and they wanted to enjoy retirement while they were still in good health. And, by golly, they've been doing that. They've just been doing all sorts of things, travelling frequently.
- Swent: They're in Arizona.
- Thompson: They live in Arizona. They have house guests constantly, they travel constantly, they've made new friends. Actually, I was surprised. My dad was a bit of a workaholic and I was a little bit worried about him, but it's worked out great. The transition's been fantastic. Should we all be as fortunate, you know; they're still in good health.
- Swent: So you were living right in Manhattan then?
- Thompson: We lived on 72nd Street, which was not too far from the park, Central Park, and in those days it was safe to go play in the park.
- Swent: And you have a brother.
- Thompson: I have a brother, and he's three years younger.
- And then there's one that's twelve years younger who was an "oops".
- Swent: So he was born in the States, then.
- Thompson: In the States, yes. That's right.

¹Frank Woods McQuiston, Jr., Metallurgist for Newmont Mining Corporation and U.S. Atomic Energy Commission, 1934-1982, an oral history interview conducted in 1986 and 1987 by Eleanor Swent, Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 1989.

Learning English

- Swent: And you would have optional American citizenship?
- Thompson: That's right. Actually, I had to learn the English language, because I didn't know English when I came. They tried to teach me English in Cuba, but I stuttered. They took me to a doctor and they said, "Well, this poor little boy has limited mental capacity, so one language only, please," and so since we were in Cuba, I learned Spanish. But my folks spoke English quite well, and so when we got to the States, that's what they did, had to speak English until I learned it.
- Swent: There was no bilingual education in the school?
- Thompson: No, and frankly, I'm quite opposed to bilingual education. I have no problem with help--some of the approaches with English as a second language which they have in Canada--but I have had some rather heated debates with school authorities on bilingual education. I think we're creating a second-class citizen group in Canada--I mean, here in the United States. I keep saying Canada because now I'm living in Canada, so it gets kind of confusing.
- Swent: What school did you go to in New York?
- Thompson: Let me think. It was Resurrection School, which is another Catholic school.
- Swent: Parochial school.
- Thompson: Parochial school. Then when high school time came about, my folks had already moved to a place called Mount Kisco, which is in the suburbs, towards Connecticut. We decided that I would not go to parochial school anymore and I went to Fox Lane High School, which is a public high school nearby. And then, upon graduation in 1967, I applied to several schools. I really didn't know if I wanted to go into mining. My dad never really pushed me into it. Went to great pains not to, I think.
- Swent: Was your father travelling at that--
- Thompson: Yes. That's something I'm very cognizant of with my children, and one of the benefits of this recent move to Canada is I'm spending more time at home. When I'm home, I make the effort to do things with them and things of that sort.

Swent: But you weren't actually seeing mining places, were you? I mean, you were hearing of them, but--

Thompson: No, no, not in New York, obviously. About the only thing we did is we'd get a couple of tours, but they were infrequent. One was a cement plant and barge tour.

Swent: They had a cement plant up on the Hudson.

Thompson: That's right. Golly, can't remember the name of it now.

Swent: Can't either. American something, was it?

Thompson: It was sold to a British company. Anyway, they made cement there on the Hudson River and we got to ride the barge and all this kind of stuff.

No, so I didn't really know if I wanted to be in mining, so when I applied I hedged my bets by applying to several schools. I did apply to Colorado School of Mines, which was the premier school at the time, and I was accepted.

Swent: Were you a good student in high school?

Thompson: Yes, I did well.

Swent: And you were young.

Thompson: Yes, I was seventeen when I graduated. Yes, I think there were 204 kids in our school. I was ranked tenth in grade point average. Nine girls in front of me. [laughter]

Boy Scouts

Swent: And where were you doing the scouting?

Thompson: That was in New York. I was in the Boy Scouts. My dad--in retrospect, I think he was quite right--saw scouting as a way for me to get to know American kids and learn how to fit in better with the new society that we were part of, so we started scouting right off the bat. I loved it, and I stayed with it for many years, and eventually became an Eagle Scout. I was assistant scoutmaster at the very end.

Then I went off to college and that pretty much put an end to it. Now, I'm getting back into it because my children

are reaching the age of scouting. My son's in scouting and I've been helping out. When I was here living in San Francisco I was on the board of directors of the Silverado Scout Council. Then up in Canada, I've been the treasurer of the local district on a volunteer basis. That's what having your own children will do for you, bring you back into the fold, I guess.

Swent: It did give you good leadership training, though.

Thompson: Well, I think so. That's one of the strengths of scouting. The Cub Scout level is a little bit different than the Boy Scouts but in the Boy Scouts the boys run the meetings, or run the troops. Yes, you have a scoutmaster, but you used the patrol and the patrol leader and the assistant scoutmasters, all kids. You work your way up the ladder and you learn how to advance on your own merits and leadership, so yes, that's one of the big pluses of scouting.

Swent: And I think, especially if your father was not there all the time, for you to achieve Eagle Scout is really something that says a lot for your--

Thompson: Well, for both, and my mom, too, because they had to drive me a lot of places and all those sorts of things, so it's a real commitment.

Swent: An Eagle Scout seldom makes it without some parental help.

Thompson: Absolutely, that's right.

Swent: That really is an accomplishment, though. I really admire that.

Thompson: I found it useful, I think. I can't point to anything, but I know it helped shape me. So what I am today is partly the result of that experience.

University of Arizona, Tucson, 1967-1971

Swent: So you started to say that you considered Colorado School of Mines.

Thompson: Right. I was accepted there, but I was afraid that I wouldn't like mining, so I opted not to go there and ended up at Arizona instead, University of Arizona at Tucson, which had a mining

school then. I understand now it's part of the engineering college, but it was a separate college in those days, and quite well known. It was a very vibrant school. Normally they had you do the same courses as all engineers for the first two years and then in your junior year you took mining courses. I was able to talk my way into some preliminary or beginning mining courses as a freshman, because I wanted to know. And I just fell in love with it and stayed with mining and never had any doubts after that.

Swent: Who were some of your teachers that you particularly recollect?

Thompson: I remember Dr. John Abel in particular, who's now at Colorado School of Mines, interestingly enough. He's the one that really stands out.

Jay Dotson is another one who was there. Bill Peters, who taught me a lot about mining geology, and the importance of geology in mining and exploration. Then there was Dr. D'Adepo in strength of materials and structure classes. He wasn't in the mining school, but he was in the engineering courses that I took. Those are the ones that immediately come to mind.

There were several other--Frank Graybeal, who was a graduate student, was doing some teaching on the side to some of the graduate courses, and I learned a lot from him, again geology.

After I graduated with a mining degree, I continued to take courses. I stayed in Tucson and worked at San Manuel and I was headed toward a masters in geological engineering. I earned thirty credits towards it, but then I moved to Canada and I just never finished it. So I stayed in touch with the school and the people there.

Swent: So the first two years you were taking the general introductory engineering plus special mining.

Thompson: I learned real quickly. The first semester I took twenty-one credits, twenty-one hours. That was probably my best semester. The next one, I said, "I've got to take it easier." I think I took something like sixteen to seventeen units. It was probably my worst semester, so I learned I had to stay busy. So I always had eighteen or nineteen credits a semester, and I graduated with many more credits than I needed to. I think everybody needed like 140, and I graduated 160 hours or something like that.

Swent: And I see you had won the Jackling Award as outstanding senior.

Thompson: Yes. That was an award from the mining school. I was also in the school government, representing the mining school. Those were the activist days. You know, those were the sixties, the late sixties, when there were demonstrations on campus against the Vietnam War, and the whole era of the sixties.

Swent: Were you involved in that?

Thompson: Yes, in a way, of course we were.

Swent: Of course, everyone was involved--

Thompson: Everyone was involved. Well, we were considered quite conservative, being in the mining school, you know. Engineering, the engineers, you know, were nerds or whatever.

Activist on Control of Smelter Emissions

Thompson: But interestingly enough, our involvement--and it says a lot how society has changed--is that in those days the copper smelters had no controls on the emissions of sulfur dioxide, SO₂, which we now worry about in terms of acid rain. This became a big cause on the campus and we were under a lot of pressure from our fellow students. You know, "How can you be associated with industry that does such nasty things?" So we formed a committee to investigate this, ten or twelve of us or something.

We wrote to all the smelters and their parent companies, and said, "Can we please visit you? Here's what we're about." Most of them turned us down, and those that did allow us to go visit them ranged from very cooperative to downright very difficult. In Magma, in particular, the fellow that was in charge of the smelter there, sort of a throwback to Jurassic times.

Anyway, we wrote a report, which we distributed. I haven't looked at it recently, but I remember a few years ago looking at it, and it was a bit naive, as kids would do, but nowadays everything we said in there has happened and more so. I mean, they're there on the ninety-plus percent control on SO₂ and there's acid plants being built and flash smelters, and the technology has just been totally revolutionized by the environmental movement and the effort to control emissions from copper smelters.

Swent: So what was your personal feeling about this?

Thompson: Well, I felt that change was needed in the industry and one way to do that is to be part of it. It's probably not a very sophisticated way of looking at it, but I figured if you want to fix it, you get in there and fix it. One way to do that is to work within the industry and help change it, help improve it. I don't know how altruistic we all were. It was pretty typical of kids that age. We were late teens, early twenties, and that was my first brush with the environmental movement.

Swent: The copper smelters, of course, at that time were really running Arizona, weren't they?

Thompson: Oh yes, very much so, and the political strength was rather disproportionate to the number of people that actually worked in the industry. But, on the other hand, some of the accusations that were being made were just not founded. The pollution in Tucson was being blamed on the smelters. Well, smelter: there's only one, and that's the Magma smelter and the wind blows in the other direction. Occasionally, you might get blow-in from the smelter, and I guess the Hayden smelters, perhaps, which are further away.

But then there was this long strike of the smelters and the pollution levels in Tucson were as bad or worse as they ever were and then you began to see a little bit of reason entering the debate. Some university professors did a very careful study of pollution during and before and after the strike and came to the conclusion that Tucson's pollution was due to cars. And, of course, that's what we're finding out throughout everywhere; it's the emissions from vehicles. This was in the days before catalytic converters and all that. So, but by then, nonetheless, the smelters had all been forced to either close, like the Douglas smelter, or to modernize, like the San Manuel smelter, which is now probably the most modern and the one with the least emissions in the industry.

Swent: There was a previous strike that I was recalling, but there was a strike in the--

Thompson: In the seventies, yes, that would have been. I don't remember, Lee. I was in the second strike because I worked in the smelter during the strike punching tuyeres in the converter aisle, but that would have been probably '73 or '74, so this must have been an earlier strike. My memory's hazy on that. I don't really remember.

Swent: Well, I suppose they happened every couple of years.

Thompson: Fairly regularly, in those days. But my memory's hazy on the exact sequence.

Swent: Anyway, that's interesting.

Thompson: It may have even happened after I already graduated. I don't remember. That was the big issue, environmentally-wise, when we were students.

Swent: That was more than the Vietnam War, it ended up later.

Thompson: No, no, Vietnam was number one for sure, no doubt about that. Our campus escaped most of the very destructive riots and things like that.

Swent: Wasn't there one terrible incident down there, though?

Thompson: There was, but it was outside the campus and it was non-students. It seemed like it was non-students--riff-raff, I guess you would call it nowadays, or street people--that created most of the problems then, the real rebels. The students per se, not that they didn't participate--I mean, we had candlelight marches and all this kind of stuff--but the violence was off campus. I can even picture the gate where all that stuff happened, but it's nothing like what happened here, say, at Berkeley, or Davis and those places. You know, Arizona's pretty conservative. The kids that go there are pretty conservative for the most part, and it probably still is, I would think.

Swent: Interesting time to be in college.

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Thompson: Well, initially, I didn't have to go to Vietnam because I was in school, and had a school deferment. Then they did away with those and held a lottery, and I was very fortunate to have a high lottery number, so I never got picked to go to the war.

Swent: Some place along the way there, you had to, you said, become naturalized?

Thompson: Well, it was 1965.

Swent: You just had to choose.

Thompson: Yes, that's right. Actually, I guess I had until age eighteen to do so, but I went ahead and did so at fifteen. That's where I got into the English language. I had to learn how to speak

English and then I had to learn about the Constitution and learn the Pledge of Allegiance and things like that. I went through all that and got my naturalization papers. I'm pretty sure it was '65, 1965. You had to wait five years. It's changed since then. I think it's quite different now.

Swent: So you were not at risk of going to Vietnam until, well, really not--

Thompson: Well, I was only fifteen. Yes, it had to be a draftable age, so it really was when I went away to college that I could have gone to Vietnam, but as I said, I was pretty fortunate in that respect. I had friends that did go, including two that never came back, but they were high school friends that didn't go to college, didn't have a deferment, and went to the war.

This was also the time when all the drugs were becoming a big thing, and free love, and all this kind of stuff. There was some of that in Arizona, but again, not to much of an extreme, at least for most of the students. There's always a little group that gets carried away with anything.

Swent: And your parents were still living in New York?

Thompson: In New York, yes. I would go back summers. I had, through a referral from one of my teachers in high school, gotten a job with the highway department. I was a draftsman and surveyor for the highway department summers until the year between my junior and senior years, when I worked underground at San Manuel Mine as a laborer for the summer. The pay was much better.

Swent: Was this a Newmont property?

Thompson: Well, in those days it was only 80 percent controlled by Newmont, before they bought the rest of it and took control, so it was almost an independent company in those days. As strange as it may sound, they were fairly independent. Then eventually Newmont did exert its control. I was already working there. When I graduated, I went to work at San Manuel, and I was there when you began to see the effects of the Newmont changes. Little things like budgeting were now from zero-base, instead of the traditional way they had done it there before, which was to photostat the previous year's budget and go from there. That kind of stuff.

Swent: So they changed their budgeting and--

Thompson: Yes, those are the kinds of effects that we saw down at the property level.

II MINING ENGINEER, SAN MANUEL, ARIZONA, 1971-1975

Swent: What was your first job with San Manuel?

Thompson: They had a training program, other than the summer job--I was just a laborer; did a little bit of everything. When I actually graduated and went to work, they had a training program for engineers and we did a fairly formalized cycle, progression through the mine. You started out in, say, development, and then you went to the haulage, and then you went to the shafts, and that sort of thing. And you'd spend one to two weeks, three weeks, on each one, depending on the type of job it was. And that worked pretty good until they ran short of bosses or something and they cut short the training program after about, I'd say, four months or so. I became a shift boss, underground.

Shift Boss to Level Foreman

Swent: How much were you paid?

Thompson: My first job was \$900 a month. I remember that.

Swent: The summer job?

Thompson: No, as a graduate engineer. That's pretty good pay, I thought.

Swent: This was in nineteen-seventy--

Thompson: One, 1971.

Swent: And where did you live?

Thompson: I ended up living in a suburb of Tucson on the way out to the mine, called Cañon del Oro. I had rented an apartment there with another mining engineer.

Swent: No more boarding houses.

Thompson: No, or dorms, yes. But, yes, we worked hard, and we were on the seven and one schedule, with seven days on and one day off. It was a rotating schedule, so you'd rotate at the end of each one of those eight-day cycles, and there were two short changes and one long change. By that I mean that we would get off of, say, a graveyard shift at eight o'clock in the morning and have to be back at work at four that evening and they considered that a day off.

Swent: That was your short change.

Thompson: That was a short change. And the long change is the reverse, when you had almost two days in between.

Swent: And it was an eight-hour shift?

Thompson: Yes, yes, and about an hour's drive each way to and from home. I could have lived there, but I didn't want to live there. I was single, and didn't want to do that.

So I was shift boss there for quite a few years and I ended up with a good background. I actually volunteered to be vacation relief.

Swent: Vacation relief, what was that?

Thompson: Well, the various shift bosses would go on vacation and somebody had to take their place. And the reason I did that is because it gave me the opportunity to do so many different jobs. Sometimes it would be for a week, sometimes two weeks, when I'd be a shaft boss for two weeks. And then I'd be in development, so it was very varied and a wonderful training ground. You said that we were talking about all this because you were trying to understand how it perhaps prepared me for the work that I did associated with McLaughlin, and I think that was a fantastic way to get started in this career. It was just a variety of jobs.

Swent: Was there anybody in particular that took an interest in you?

Thompson: Yes, a fellow by the name of Tom Clements. Tom as a boy grew up in the coal fields. He went to work at age fourteen in the coal fields back East, so he never had a formal education--

rising to mine captain on his merit and hard work. He sort of went out of his way to help me. He always demanded a little more out of me and that sort of thing and it got me off to a good start. It really did. He's the person who comes immediately to mind.

Hank Seeney was another one. He was the mine superintendent, but he was more removed, more remote, in the sense that I was way down in the organization. He was high up. But, you know, when he saw me underground, he'd ask me--and then when I had a car accident on one of those trips coming home from a graveyard shift, he was able to get for me a pretty interesting job to fill in the time when I was recuperating from that.

Swent: Now we want to mention those car accidents.

Thompson: Yes, they've been a part of my life influencing events and my career.

Swent: Hank Seeney was in one of the ones that you mentioned.

Thompson: Tom was and Emicio Gutierrez. Actually, I'm not sure Hank was part of that. I can't remember. But several of the top staff rode together in the same car and they got into an accident with a road grader when they were resurfacing the road to town.

Swent: Where is San Manuel?

Thompson: San Manuel is outside Tucson to the north, on the way to Hayden and Globe and that area. It's about an hour's drive from where I lived.

Swent: A lot of people work and live quite long distances apart in that country.

Thompson: Yes, that's right.

This car accident is what we're talking about. What happened was that these top managers from the mine got involved in a serious accident, so I was kind of thrust into a position of responsibility very early in my career.

Swent: So this was when you were on vacation relief?

Thompson: Well, no, that was a little bit later. I, by then, had been promoted to what they call level foreman and was in charge of a whole level at the mine.

Swent: How big was the mine?

Thompson: It was the largest underground mine in the world. We were producing, in those days, sixty-some thousand tons per day from an underground mine. We set the record while I was there. I was shaft boss on the day that we set the record. I remember we had 916 skips on our shift, which is the device that we used to haul the ore up. We set a record of 72,000 tons hoisted in one day. That's a huge amount. So it was like a factory.

Assistant Mine Captain

Thompson: But when these fellows were in the car accident, in the months while they were recuperating, I was asked to basically be assistant mine captain, and another fellow became the mine captain, and between the two of us, we ran the underground. What I learned is that you don't do it with just two people. You've got to rely on the people that are there that know the job better than you ever will, and know what they're doing, but support them, but let them do their job. There was no other way I could have gotten past that period.

Swent: That's extremely young to have that kind of responsibility.

Thompson: Oh, sure it is, absolutely. But you know, one of the things that happened there is that the mine was built in the late 1940s after the war and they hired a group of people that were very good. They pioneered the use of a new bulk mining method called block caving. For its day it was quite a technological innovation, and it was a success. Then they kind of sat back and said, "Gee, what a nice job we did," and they didn't hire anybody for years and years and years. So there was this huge gap, and all of the sudden, some of these folks started to retire, and they almost panicked, in a sense, and they hired a lot of young people.

There were some thirty engineers they hired in the first two years I was there, fresh out of school. A lot of them didn't last very long. They didn't know quite how to handle us and all their ideas and all that sort of thing, and the impatience of youth, but there was this huge gap. That created an opportunity for us young guys.

Labor Relations

Swent: Did they have exceptionally rocky labor relations, or was that just an idea I have?

Thompson: Well, it was a union operation.

Swent: They had a couple of really bad, long strikes.

Thompson: A lot of the problem was that they had so many unions. There was something like twelve or thirteen unions and this complicated things. One might be okay, and another one would go off and have another grievance and then they wouldn't cross the picket lines.

Swent: Were these craft unions?

Thompson: On the surface, mostly. Underground, it was the steel workers. Relations have changed dramatically there in recent times. They've negotiated some rather unique arrangements. There are contracts lately that include gain-sharing and quality circles and all the latest innovations. And it's not so much exactly what they're doing, it's the fact that they're doing it together, because they've realized they're both in the same boat and if they don't fix the holes, it's going to sink and then they're all out of work. So the relations there have really changed. I never really had too much trouble with them. I was more worried about the safety aspects. We never did have a very exemplary record there and that was a major concern.

Swent: They had some bad accidents.

Thompson: Yes.

Mining by Block Caving

Swent: You mentioned the mining methods that were--

Thompson: It's block caving. It was the second mine, I believe, in the world, to use block caving, the first one being the Miami Mine.

Swent: Also in Arizona.

Thompson: Also in Arizona, that's right. And, basically what you do is, the rock is very soft and broken as it exists, so you go in,

you take a slice out of it, and you let it cave in around you. It's a controlled caving-in process that you let gravity and nature break up the rock for you. It's not a bad method; it's still in use in places, but it was very labor intensive the way this one was designed. Newer mines using the same method now are much more mechanized, using the diesel equipment and things like that, but this did not have the benefit of that modernization.

Swent: What sort of equipment were you using?

Thompson: Well, tracked equipment, using locomotives and railroad cars to haul the ore. The crusher was 900 guys with a sixteen-pound sledgehammer in their hands, breaking rocks.

Swent: Really?

Thompson: Yes, we called them chute tappers and I used to have wonderful callouses on my hands from all the hammer swinging that I did. But they still do it that way. They still have chute tappers breaking rocks on grizzlies by hand. It's just that the cost of changing now appears to be prohibitive. I think they have made some effort to modernizing it. Apparently they haven't been successful because they haven't changed.

Swent: Is this an especially risky kind of mining? Is this why they had so many accidents?

Thompson: Yes, it creates problems in that you're always working near hangups and boulders and things of that sort and always working over an open raise so you have a risk of falling--things like that. But it seemed like the accidents were throughout, not just in the chute tapping, but also in development and up on the surface.

What's really interesting is that when I left there, I went to another Newmont operation, which was the Granduc Mine, up in northern Canada, and lo and behold, it won the award for the safest mine in Canada in 1975, which was the first year I was up there. Same company, but a much more modern mine, different ground conditions. The ground rock is much less stable at San Manuel than at Granduc, but overall, I'd say it was more the attitude, the emphasis on safety. Every worker there knew the first priority was safety. I'm not so sure that was the case at San Manuel, where production was probably number one. I think that's the difference; it's an attitude.

Swent: Were there a lot of Mexican miners at San Manuel?

Thompson: Oh yes, quite a few, excellent miners. I was the first Spanish-speaking level foreman in the mine, and that says something about the history of the mine. But now there's all sorts of other Spanish-speaking people in charge of departments, etc. It's rather interesting because I ended up being sort of like a father-confessor for all these guys, so I had an advantage that a lot of others didn't, in that respect. I was lucky to work there and I'd like to think that it helped me because I think people went out of their way to teach me and show me and do things for me that they never have done for someone else.

Swent: Now your father, of course, he was not president yet.

Thompson: No, not then. He was in the head office. And that was always in the back of my mind. "Am I doing this on my own merits, or is it my dad?" Eventually, when I left Newmont--I was with them ten years--that was fairly high in my reasons for leaving there.

Swent: It could be kind of a burden as well as an advantage.

Thompson: Sure. Absolutely, absolutely. It's actually harder, I think. One has to be twice as good to get the recognition. But yes, looking back at San Manuel is like everything--there's pluses and minuses. And yes, I learned much there, both of ways to do things and ways not to do things, and the benefits of modernization versus old-style methods, and things of that sort.

Swent: You didn't mention your automobile accident. You mentioned the one Clements and Gutierrez were all in the same accident. That pretty well wiped out their management for a little bit.

Thompson: Yes, some came back pretty quickly, but I think Tom [Clements] was probably the longest off, and I had his job, basically, for a long time. I'm trying to think. It would have been a couple of years later I had my accident. It was a head-on collision and I hit an eighteen-wheeler. I fell asleep at the wheel coming home from graveyard shift, and plowed into it. But I was in a sports car, so I went underneath the truck, which actually saved my life. It sheared the top off, but I was asleep, sunk down.

I was in the hospital for a while and then when I came back I couldn't walk very well. I had a broken kneecap among my injuries. They didn't want me to go underground so I went to work in administration. As I mentioned, Hank got me the job, and that was to computerize the company. The company had

no computers on the property. They were still doing the payroll using the old NCR machines and things like that. So the first thing we did was computerize the payroll, and then we computerized the warehouse and the accounts receivable, accounts payable functions, and I was involved in that for about a year.

Swent: Had you studied anything like this in college?

Thompson: Yes. By the time I got to college, computers were starting to be recognized as something that was a good tool, particularly in engineering, and it was a required part of our course. We were still using the old card entry systems and all that, which were not user-friendly, I will tell you. Then we had this huge computer that the university had, and had a whole building for this thing, which you weren't allowed into and everything. You just had to send them the cards and they'd run the programs for you, and the next morning you'd go get your runs and all this. So I had some background in that, and maybe that's perhaps why I got the assignment.

I learned a lot about working through other people in this because I couldn't order them to do this or do that. I had to convince them to do this or do that. So it was a good experience for me. And then I went back in the mine, and actual engineering. It wasn't much long after that that I got married, and moved away to Canada.

Swent: You met Linda in Arizona?

Thompson: Yes. She was also working for Newmont, but at the exploration office. She was secretary at the exploration office.

Swent: You didn't meet her at college.

Thompson: No. We both graduated together. She was in public administration and was initially a probation officer for delinquent kids. I guess you don't call them that nowadays, but they were underage children, I guess, in trouble with the law. [She] found that she didn't like it and took up secretarial duties while she decided what to do. That's where I met her and she decided that what she wanted to do was to get married, so she married me. But we got back from our honeymoon, and god, it hadn't been two weeks when we were offered the job up in Canada and went to Granduc.

III WORKING FOR NEWMONT AFFILIATES

Chief Engineer, Granduc, British Columbia, 1975-1978

- Swent: And this job came to you without your seeking it?
- Thompson: That's right, although I was ready. I think that somebody must have heard the vibes. I was ready to move on. I had been there five years at San Manuel and was ready for something different. And this clearly was different. I went from the jungles of Cuba to the jungles of New York City, and then to the desert of Arizona, and then to the northern climates and glacier country of Granduc, just gorgeous countryside.
- Swent: This is in British Columbia?
- Thompson: British Columbia. We were north and east of Ketchikan, Alaska, so we were part way up the panhandle on the Canadian side. You actually go through the U.S. for about seven or eight miles on your way to the mine, which was about thirty-one miles from the town of Stewart, where we lived. Another underground copper mine, but a very different mining method, very modern. Highly mechanized, very efficient.
- Swent: Was this newer, then?
- Thompson: Oh, yes. It was built in the late sixties. It was 50 percent ASARCO, 50 percent Newmont, and it was operated by the Granduc Operating Company, which was an independent company owned by the two parents. It also operated the Similkameen Mine down in the southern part of British Columbia. Granduc was a technical success, a fantastic achievement, which just never made any money. My understanding is it lost about \$115 million over the life of the property. I was there until it closed.
- Swent: What was your job there?

Thompson: I started out as chief engineer, then had safety, then I had human resources, and then I had the town site, and kind of sometimes combinations of jobs. One of the things about this property is its location--so isolated that turnover was very high and we had to be fairly flexible in terms of job assignments and things like that.

Then the manager of the property, Clair Chamberlain, who I have nothing but a lot of respect for, that guy made me work twice as hard as everybody else because he really liked me and he really wanted to teach me how to be a manager and take a professional attitude to everything I did. He wouldn't accept anything unless it was really a polished, well-done, professional memo or document or letter or whatever. Taught me a lot. But he had some heart problems and had to take early retirement, so then Kurt Dahlke became the new general manager for the project, and I became the production superintendent in charge of the mine and the mill. We had 900 employees, producing about 10,000 tons per day.

Swent: What was the housing situation?

Thompson: We had a camp at the mine site for the single status folks, and then the married people lived in Stewart, which was thirty-one miles away, through the mountains. It was quite a breath-taking mountain road to get there. We lived in company housing in Stewart, a little townsite in addition to the existing older town that was there. Stewart is, if there's anything you'd use to describe it, is inclement weather: it rains all summer and snows all winter. The average snowfall for the town was about 400 inches of snow a year and at the mine site it was 650 inches of snow a year. Quite a difference from the Arizona desert.

Swent: Tucson was what, maybe ten inches a year? [laughter]

Thompson: Yes. Now this is real rain forest country, right on the coast. We were on salt water. There was a sixty-mile-long fjord that came up there. We had wonderful salmon fishing, wonderful wildlife. We saw mountain goats and bears and bald eagles by the hundreds. It was just gorgeous. And we bought snowshoes and we'd go snowshoeing in the winter.

Swent: How did Linda take to all this?

Thompson: She loved it. She loved it. At first it was a bit rough because she couldn't work. We had to wait a year, and then she could apply for work, and then she went to work in the school and was a school secretary in a one-person office, which was

really neat because it allowed us to know the townspeople. We were fortunate in that respect.

Swent: This was the public, government school in--

Thompson: That's right. So we were kind of running in two circles: the mine social group and the town social group. We were sort of on the border with both.

Swent: That's nice.

Thompson: It was, and then some of our best friends to this date were made through those years there. And it wasn't that long. It was only about three years, but my god, we stayed in touch.

Swent: You make close friends in a situation like that.

Thompson: Yes, you sure do. It was funny, we sold Linda's car and bought a pool table, thinking that we'd have to entertain ourselves. We hardly used it, we were so busy. I was in the Lions Club, she was in the hospital auxiliary and all those tons of things, and we just never had time for it.

Swent: Those places can be very, very busy.

Thompson: Yes. We look back on it as a real fun time in our lives. It would have been a tough place to raise kids, I think, because the schools are probably not as good as you would get, say, here, in San Francisco, or in the lower mainland, in the Vancouver area in Canada. So for that time in our lives, it was perfect.

So Heather was conceived there, but we moved while Linda was pregnant, and she had Heather, our oldest daughter, in 1978, in November of '78.

Manager, Dawn, Washington, 1978-1981

Swent: So you were in Granduc from '75 to '78?

Thompson: Yes. And then we ended up at Dawn Mining Company, which is another Newmont-affiliated company that was 50 percent owned by Spokane Indian individuals. We were mining on a Spokane Indian reservation. It was a uranium mine, 400-ton-per-day operation. Fascinating property. We had so many things to do there. It was an open pit. It was my first experience with open pits, so

I did a lot of learning on that aspect. The process side was very alien to me, very different from what I was used to in copper.

Swent: How much processing were they doing then?

Thompson: We produced yellowcake.

Swent: You had a mill.

Thompson: Oh, yes, yes. It was an old mill, wooden mill. I think everything made out of wood. Beautiful mill. It was very clean. We always kept it very clean. It ran very well. Walt Lawrence was my mill superintendent. He's now vice president of development for Newmont. And Mac DeGuire, I hired him for there and he took my place. And he's now vice president for Newmont as well. He's off in Uzbekistan, I think, at the moment. So some of the fellows I had there and were affiliated with are now throughout senior levels of Newmont.

But what I started to say was even though it was a small mine, as manager--of course that was the first time I was in charge of an operation.

Swent: You were sent there as manager.

Thompson: Yes.

Swent: Were you replacing--

Thompson: I was replacing a fellow who was retiring. He was very gracious in teaching me the ropes during the short period of overlap, so things worked out pretty good.

You have to realize the time here. This is the late seventies. This is sort of the height of the nuclear, anti-nuclear, I guess I would say, movement in the States. The Nuclear Regulatory Commission was setting new rules and regulations for the operation of uranium operations, and the State of Washington was doing the same thing. And they needed a new tailings pond, so we were in the permitting process through all of this. We would go to hearings, and there would be hundreds of people there with pictures of deformed babies, arguing not so much against the project, but that the nuclear cycle was something society shouldn't follow.

So I was very heavily involved in the debate of nuclear versus non-nuclear. It proved to be an invaluable training ground for some of the skills that I developed there that we

were able to use at McLaughlin, because the regulatory climate in California, as I found it years later, was not too dissimilar to the nuclear cycle and the Nuclear Regulatory Commission and that level of regulation and care with things that we have to do to supply what society wants.

Swent: Were people like Dixie Lee Ray and any of those people involved?

Thompson: Yes, she was governor of the state and was a real ally for us, and we got our permits. I never spoke to her directly, but we lobbied through her assistants, or whatever, in Olympia and they did help us in getting our permits. Washington was still a pro-nuclear state, and I think they still are to this date. Dixie Lee has since written a couple of books on the subject and although she's perhaps a little more hard-headed about it than I am, a lot of what she expresses are sentiments I share.

Swent: Yes, she's been a very pro--

Thompson: Very articulate, pro-nuclear in outlook.

##

Thompson: We were talking about Washington State and the nuclear cycle.

Swent: What is the town that's near Dawn?

Thompson: Ford, Washington. We lived at Nine-Mile Falls, which is almost--I guess you could call it a suburb of Spokane, so it's in eastern Washington.

Swent: Nine-Mile Falls.

Thompson: Yes, it's nine miles from someplace, we never did find out where. It's on a tributary to the Columbia River called the Spokane River.

Swent: Another kind of geography--

Thompson: It is. Oh, it was gorgeous. Forest country, a lot of water sports with the river nearby, and there are several dams on there so there are little lakes that you can use, and you can just bop over to the Coeur d'Alene district in northern Idaho and Montana and all that, so recreation-wise, it was just fantastic. We had a canoe and we did a lot of fishing in streams and little lakes and that sort of thing.

Swent: Did the company provide the housing?

- Thompson: No, we bought our own house. That was tough after being out of the housing market, living in Stewart in a company house. Think of those years: that was '75 to '78. That's when housing was going through the roof, and it really put a stretch in our financial resources. I didn't make money going to Canada in a sense that by the time I left, I was poorer than when I went there. Exchange rates went against me. When I went up, the exchange rate was \$1.10 U.S. per dollar Canadian. By the time I left, it was \$0.90.
- Swent: You were paid in--
- Thompson: Canadian, so I lost a lot of my savings that I had converted to Canadian dollars. I learned a few lessons about money management and all that.
- Swent: And the company didn't help you out on this, compensate you?
- Thompson: No. On the other hand, if you think about it, they provided me an opportunity. I was still working for them. My going up there is what led to my promotion to manager, you know? So you've got to take the broader view. It worked out pretty good. We ended up in a nice house out in the country. We were able to get probably a nicer house with it than if we were living in Spokane itself. Heather was born there. She was born at Deaconess Hospital. I remember that, downtown.
- Swent: In Spokane?
- Thompson: In Spokane. One of the things that was really interesting was the high level of native hiring that we had on our project. We were about 67 percent--two-thirds of our employees were Spokane Indians.
- Swent: Was this a requirement?
- Thompson: No, it just happened that way. The mine had been running for twenty years, so over that time, we, little by little, picked up the better people in town. We obviously provided them a good place to work. We had wonderful relations with our employees. We had the Operating Engineers as the union, and it was an excellent relationship. No problems whatsoever, before or after I got there.
- Swent: Is this the place where most of the people were farmers that you trained as miners?
- Thompson: No, we had some, but that was at McLaughlin that we trained a lot of farmers and people who had never been in mining before.

- Swent: I was thinking that at Dawn somebody had mentioned training farmers there, but--
- Thompson: Well, I'm sure that's the case, because we recruited from the locals. Makes for a very stable work force.
- Swent: Now at San Manuel, of course you had mining people coming in and out all the time. And what was the situation in Granduc?
- Thompson: Almost everybody were professional miners, so to speak.
- Swent: People who came in--
- Thompson: Yes. We would hire them from other mines. "Tramp miners" is another word for it. [laughs] If you were a good miner, you could get a contract right away, and didn't have to work your way up seniority-wise. We had Operating Engineers at Granduc, as well, and had a good relationship there. Really not too much trouble. But this native aspect of it was a real learning experience for me. We were paying about 30 percent of our profits as a royalty to the tribe, and then a third went to the native owners, and a third went to Newmont. So it was kind of a skinny pie for Newmont in the sense they weren't making much money on it.
- Swent: And this was your responsibility? How did you work this, deciding which grade of ore to mine?
- Thompson: It was pretty straightforward. It was an open pit. We had a long-range mining plan and we had sales contracts, which is why we were doing so well, and some of them for forty-some dollars a pound.
- Swent: All to AEC at that time?
- Thompson: Well, the initial contracts were to the AEC, but by the time I got there it was to Omaha Public Power and Light, and Kerr McGee was the other buyer from us. We sold some to the Koreans there for a while, and then that was finished off. So little by little, the contracts were eroded and shortly after I left there I think most of the contracts expired and eventually the mine closed.
- Swent: Let's see, what were the prices? You had mentioned to me what happened to prices when you--[laughter]
- Thompson: Oh, oh, my whole career, yes. Well, when I started in copper, it was like 90¢ a pound, and by the time I left it was 35¢ a pound and it closed the mine down. So then I moved to uranium,

which was selling for forty or fifty bucks a pound. When I left, I think the free market price for outside contracts was something like fifteen dollars. Eventually it got down to well in the single digits. And, of course, Grants, one of the Homestake operations, was also closed. So then I chose gold, which was selling for six hundred-something an ounce, and saw it go down to 280. But that's been the history, I guess, of the folks that graduated along with me. It's been a tough couple of decades.

Swent: It's been a very bad time, yes.

Thompson: Yes. Dawn was a good time. We started our family and made some good friends again.

Swent: How many children do you have?

Thompson: I have two. Michael was conceived there, but born in Napa. How we got to Napa was interesting in that Bill Humphrey, who at the time was Homestake's senior vice president of operations, had worked at Newmont prior.

Swent: And what time was this?

Thompson: That would have been 1981. Bill, I think, came over in 1980 or something like that, from Newmont, and when he needed somebody for the McLaughlin project, he remembered me and gave me a call. I wasn't looking for work. He just called me and said, "I've got this neat job." And I said, "Well, I'm not looking for work." He said, "Well, we ought to at least talk about it," so I did.

Swent: You had known Bill.

Thompson: Oh yes. I had worked for him because he was involved, through Newmont, at Granduc and at Dawn. I used to report to him, when I was working at Dawn, for a couple of years. Then I reported to Wayne Burt when Bill left. And he says, "Time you went off on your own and not work for the company. Your dad's the president," and all this, so he gave me the full spiel. But what really did it for me was the fact that it was an opportunity to be involved with a project from the ground up, where all we had was the drill data and we had to calculate the ore reserves, design the mine, construct it, and then run it. Really, that's what every mining engineer dreams about.

IV MCLAUGHLIN MINE FROM THE GROUND UP

Putting the Team Together

Swent: This is just at the point that they were turning it over to operations from exploration?

Thompson: Actually, ahead of that. I initially came to work for Jim Anderson in the exploration group.

Swent: Who was the--

Thompson: Who was the senior vice president of geology, or exploration. I think exploration was his title.

Swent: They started in '78, I think.

Thompson: That's right. Well, the discovery was in '78. We really didn't get started drilling until 1979 because it took a long time to get the agreements with Bill Wilder and Bob Kauffman, and we really didn't make our first announcement until, I think it was August of 1980 when we announced that we had something like six million tons of .17 ounces per ton or something like that. And then I joined in 1981 and we, by then, had much more information. We did the ore reserve and that's when we announced our twenty million tons, or whatever it was, of .16. That was the initial ore reserve that we did the feasibility on.

I was brought in primarily to do the feasibility for the project, and so I was deeply involved in everything from ore reserves to the preliminary design and all that sort of thing. And because of the refractory nature of the ore--by refractory I mean that it's not readily amenable to the traditional methods of extraction, which is nowadays cyanide, or even flotation. It just didn't respond very well to those, so we

had to come up with something new. I got very heavily involved in the process selection and the final selection of the autoclave process. So that's what I did during this period of working for the geology group, and the feasibility was my primary focus.

Swent: So you came on working for Jim first.

Thompson: That's right. And the project was turned over to the miners after the feasibility was completed, which was '82, it would have been. I think March or April of '82, something around that time frame.

Swent: Were you the only person who bridged that--

Thompson: I started to put my team together before then. We knew it was going to go. I mean, we all believed it was going to be developed, so I started bringing some people in, like Mike Attaway, to do the mining design, because I felt at the time that I needed help in the mine design and the open pit aspects of the mine, and Mike basically handled that.

Swent: Where was he from?

Thompson: Well, we had gone to school together, so he was an old schoolmate of mine, but he had been working in the copper industry. He had been at, I think, Anamax, down near Tucson, and I'd have to go back and look, but basically in the copper field, which a lot of us started on copper and moved on to other things.

Swent: But it was a school connection that had kept.

Thompson: Yes. And he had already been doing work for Homestake, which is really interesting, on a contract basis for various jobs. He stayed on as mine superintendent later on, and now he's general manager at the Viceroy Resources' new mine down in southern California. What is it called? Castle Mountain, I believe? It's the one with the desert turtles and all that.

Swent: The one that they've made the exception for. Isn't that managed to get some sort of exception from that desert protection?

Thompson: Probably. I know that they had to buy a ranch and then they converted the ranch and made it into a desert turtle paradise. Very difficult permitting situation that they had down there. But it's been a commercial success. It's doing very well, and Mike is the general manager there, so he's moved on to other

nice things. He worked at Colosseum for a while as general manager there, as well as for Bond Gold, both of those subsequent to McLaughlin.

Another person on the payroll that stayed as part of the project group when I came on was Irma Taylor, who was an accountant who had worked at Grants and happened to live in Napa and therefore called up Dick Stoehr, I think, and said, "Hey, remember me? Well, here I am." So she started our office for us in Napa.

Swent: So she came to you?

Thompson: Well she was there. She had been hired by the exploration group.

Oh yes, she came to Homestake, said, "I'm here now, what about working for you?" Her husband had retired in Napa. She has since died of cancer, Irma, just not too long ago.

Swent: Now what did Dick Stoehr have to do with this? Why did she call him?

Thompson: I don't know. I guess she just knew the name.

Yes. Then there were a couple of other people. Ray Krauss was there. He had just been hired to help us with our permitting. Ray was one of those crossovers from the other side. He was actually environmental planner for Sonoma County, and he was hired because of his expertise and background on how permits and governments and all that work in California, particularly that part of California. And his network of contacts in the environmental community was just unmatched. I mean, he was well known to all the environmental groups and he's still there.

Both of us have grown a lot. I like Ray a lot, and his abilities, and he's learned quite a bit, I think, about how business works, but he's also had a moderating influence on us in terms of advancing the state of the art in terms of environmental protection and how do you do business in the nineties now. So it's been a neat relationship.

Swent: I think he came through the sixties in college, too.

Thompson: That's right. Well, his wife is an organic farmer. They're living on a farm near Santa Rosa.

Swent: You're about the same age?

Thompson: Yes. They never had children, so they really fell in love with ours, so it was kind of neat. But that's about it. Then very quickly Knollie Sell came over. I recruited Knollie from Grants. Grants was starting to wind down, so I brought him over.

Swent: He's an accountant.

Thompson: He's an accountant. He's now in charge of administration over at Lead, so he's moved over to Lead quite recently. Knollie was a fantastic resource. I mean, he's really good, fantastic personality.

Swent: His dad worked for Homestake, too.

Thompson: Oh, I'm sure. I mean, his sense of humor is fantastic. He's got a dry sense of humor but it's just hilarious. It really helps to set the tone for business meetings and things like that.

Then I went over to Pitch and I interviewed everybody there, you know. I recruited Tim Janke and Roger Lucas and Pam Lucas and the chief surveyor--just a slug of people from there, because that mine was closing down.

Swent: And that was uranium, also.

Thompson: That was a uranium mine as well that was closing. Yes, this was the end of the heyday of uranium, so there were a lot of people available.

Joe Young was working at Creede at the time, at our silver mine at Creede, and I recruited him to help us with the mill side. He became our mill superintendent, and eventually he moved on and became vice president of operations for U.S. Gold. Now he's consulting.

The others that we recruited from within Homestake were John Turney, in particular. John Turney was part of the engineering and metallurgical group at Denver in Golden, Colorado, and working for Bob Lear at the time. And he was one of the co-inventors of the process, so to speak. But his name is on the patent that we eventually received for the use of the autoclave, so he was very early in on the process development. Then when we got started, I got permission to steal him and have him come over and work for us.

Swent: You're going too fast on some of this, I think.

Thompson: All right, fire away. What do I need to elaborate on?

Swent: Well, when you first got here, Bill Humphrey called you and said, "Come," so what then? You came down and looked around first? You said "yes" over the phone?

Thompson: He interviewed me in New York, where I was at meetings, and Bill flew to New York to meet with me and talk to me. There was a breakfast at the Waldorf--the first and only time I've been to the Waldorf. He gave me all the press clippings and made his recruiting pitch.

Swent: Was he still going to Newmont meetings? No.

Thompson: No, I think he flew there for the meeting.

Swent: He went there to see you.

Thompson: To see me. Maybe he had other business there or something like that. And I said yes, for some of the reasons we already talked about, but I couldn't come over right away. I didn't feel it was right to just leave Newmont hanging, so we had a fellow that we had recruited in anticipation of having to move on some day, a fellow by the name of Marcel DeGuire, Mac DeGuire, and he proved up to the task and moved in there. I also wanted to get vested in my pension. I had a couple of months to go, so we waited and then I gave them notice and then I passed it on to Mac. Then I ended up down here on August 1 of 1981. Initially set up shop in Napa, we rented a home.

Swent: Was there an office in Napa?

Thompson: They had just opened the office in Napa. It was three people there in the office. Most of the people were out in the field at the mine site, which was about an hour and a half away. But the reason the office was set up there is because it is really central. Napa was the lead agency in our permitting, so the focus of our permitting activities.

Swent: Had they already arranged that?

Thompson: No, but it was fairly evident that that was the way it was going to happen. Actually, it was our preference, because Napa was much more sophisticated and had a higher level of expertise in-house than the other two counties did. It was also close to San Francisco, and I spent a lot of time driving to San Francisco back and forth. And it was easier to get to Sacramento, where we had the state level permits, yet I could still get to the mine. Everything was about an hour and a half

away, so Napa was a good place to be. It was supposed to be for six months; it ended up being two years, as those things always do.

Swent: Why did you think just six months?

Thompson: Well, for one, we realized that the process was going to be something different, and it was that the autoclave engineering and all this took a lot more attention than a traditional plant would have.

Swent: They thought that at the end of the six months that--

Thompson: That I'd move up to the mine site.

Swent: I see, the whole thing would be going by then.

Thompson: But reality quickly set in and we realized what would be involved in permitting a project in that part of the world. It isn't just Napa; we had three counties to deal with. The geologists ended up finding this deposit at the junction of three different counties: Napa, Lake, and Yolo Counties. The engineering firm was picked and it was Davy McKee. That was done relatively early.

Swent: Did you have anything to do with that?

Thompson: Oh, yes. I was involved with that. When I first came, they were still drilling and we had five or six drill rigs still on the site drilling away.

Swent: At the Manhattan Mine.

Thompson: At the Manhattan Mine, and in the region. We were also looking around the area.

Swent: Cherry Hill?

Thompson: Cherry Hill predated it and was basically over by the time I got there. Cherry Hill is what brought us to the area. I guess it would have been '78, early '78, I guess that was going on.

Swent: There was also, as I understand it, sort of an unfortunate episode with Carlin, wasn't there? I mean, that Homestake had turned down Carlin at some time earlier.

Thompson: Well, that doesn't surprise me.

Swent: Well, I don't know if it's true or not, but I heard that this was one reason they were so determined to make McLaughlin a success.

Thompson: Well, the way I saw it is the board said, "You're still a one-mine company. Go forth and find more. Here are the resources, and go do it," and that's when they hired Jim Anderson and gave him the authority to go looking for things. At the same time we got involved in Australia, and that was a pretty aggressive move into what was at the time a declining district. So Homestake was in an expansive mood for sure.

That was attractive to me, coming over to a new company, the potential for other things to happen down the road, so that was attractive as well. But what really attracted me was the fact that I could build my own mine from scratch. When I first got there, the first thing I was put to do was to review the database. My charge was to build the feasibility, or to write the feasibility, get all the building blocks in place.

Doing the Feasibility Study

Swent: What specifically comes into that?

Thompson: The feasibility is an engineering and financial study that analyzes this deposit, proposes a development scheme, comes up with the capital and operating cost estimates, and does the financial analysis to say whether it pays for us to invest this money or not.

Swent: The geologists have already said that there's something--

Thompson: There's ore there. Now, my group, as operators and engineers, look at the data that the geologists handed us a little differently because our needs are different. We calculated ore reserves based on the fairly tried and true methods of calculating ore reserves and things of that sort. We redid the drawings and the sections and the plans so that we could use them for mining and forecasting and planning of the development of the pit. We developed a computer model to model the ore body and help design the pit.

Swent: Do you do all that in-house, or did you contract it out?

Thompson: A little bit of both. We did a lot of it in-house. Homestake had a lot of expertise in some of these things and we did a lot of it in-house, but we also used consultants.

Swent: Here?

Thompson: No, mostly Denver, I would say. That's where the engineering team was, so I'd spend a lot of time in Denver.

Swent: You could do this just with papers?

Thompson: Paper and computer. We used a lot of reams of paper before it was all done.

Swent: You didn't have to bring people out here to look at it?

Thompson: Oh, sure. There was a lot of travel. We used a task force approach. What we were doing was putting together the various building blocks. We needed an assessment of the ore reserves, so we had a group of guys working on that, which includes a mine design to determine what portion of the ore body is ore, and what portion is just mineralization, ore being defined as economic.

Then we had the process, the plant side--another group, another team--under Bob Lear, who was our corporate metallurgist. It was his team that was developing the process. They're the ones who arrived at this idea of using the autoclaves. And then we had another team that was sort of the environmental side and Dave Crouch, from San Francisco, and Ray Krauss, were the guys heading that up. We used consultants more extensively there, and D'Appolonia Consultants, an environmental consulting firm, was the prime contractor there. All of this is just to build the information needed to assess the economics of the deposit.

Swent: What was the price of gold at that time?

Thompson: About \$600 or so when I first came to Homestake.

Swent: It was pretty high.

Thompson: Then it started to come down, and in 1982 it hit a low of \$280. So shortly after I came, it went right through the floor.

Swent: So your calculations are changing minute to minute.

Thompson: Yes. Well, that was very difficult. We spent a lot of time trying to decide what prices to use and in the end we gave a

range and let each director decide which number he was going to use. We didn't try to really say, "This is the number we're going to use." We had a base case and then we had a high and a low and that sort of thing.

Swent: So your feasibility--you were doing this for the directors.

Thompson: That's right. Basically a report that we then took to the directors and said, "Here is our analysis of this. We'd like to spend a couple of hundred million bucks here." And that was the basis for the request for expenditure which went to the board and was approved by the board.

Swent: And how long did it take you to--

Thompson: About a year. We finished the feasibility in early '82.

Swent: And you had to hire the people to--

Thompson: Yes, or select the consultants and that sort of thing. Some of it was in progress, but basically I was the one who pulled it all together and got it done. All this time I was working for Jim Anderson, and he was a stickler for detail and insisted on a thorough analysis of the project.

Swent: What sort of person was he to work with?

Thompson: Oh, he really wanted everything looked at and it was a very thorough analysis. He had me run through many, many dry runs on the presentations and things like this. By the time I stood in front of the board, it was a piece of cake. They couldn't come up with a question I hadn't already answered four or five times for Jim. So he made me be thorough, and I have to give him a lot of credit for that. And a lot of the things he wasn't familiar with in terms of the operating side and the autoclaving and all this, but just the preparation and the presentation and the analysis that went into it. We did sensitivities--we had a stack of sensitivities, of computer printouts, you wouldn't believe.

Swent: Sensitivities?

Thompson: What happens if recovery is only 80 percent instead of 90 percent. What happens if the gold price does this, what happens if costs are more, or whatever, and variations thereof. We looked at all the alternatives. We looked at roasting, which was a tried and true technology. We could have used it here. We decided not to use it because of our concerns that we would not be able to meet the air quality standards that were

being considered at the time. They weren't promulgated yet, but they were being considered by the EPA and the State of California.

Swent: That was one of your other variables.

Thompson: That's right. And timing. What happens if the project gets delayed, what does that do to the rate of return, and those types of things, worked out break-even costs and rate of returns and cost per ounce and cost per ton and all that kind of stuff, so it was a pretty thorough analysis. We presented it to the board and they gave us the go-ahead.

Swent: When was that?

Thompson: That would have been in '82, so it would have been--I'd have to go back and look at the exact date, but it would have been, I would guess, June or July of '82. We filed our application for the permits on August 27, 1982, and the first permits came a year later. We started construction September 3 or September 2 of '83. This is how long it took to get the permits and that, in retrospect, you say, "God, that was good. It could have been a helluva lot worse."

Swent: That was about one a day?

Thompson: Wow, that was three hundred permits, that's right. But perhaps when we talk next time we could talk about the process. Basically, you had to first get your EIR/EIS certified, and that was the big battle. Once you got that done, then the rest of the permits came rather quickly after that. Basically, you had to prove that the project was viable and the mitigations were there to protect the environment, and once you did that, then you could go after your other permits. Then it's a question of technical details and other mitigations and things like that you might commit to or not.

So all of these things are sort of going at the same time, and it was a very exciting time, let me tell you. We're going through it again; now we're doing it for Eskay, and John Turney, I swiped him to bring him up there to help me out, so at least a couple of us have been through it before.

Swent: I guess probably we--do we need to stop now?

Thompson: Sure, we can do that, okay.

Swent: But I think the thing that we'll want to get into much more detail on is this selection of the autoclaving, probably.

Thompson: It's something that's unique and distinct about this project. We made history pioneering the process.

Swent: And you were particularly involved in that.

Thompson: Yes, that's right.

Swent: And the mining--

Thompson: And the environmental--I'd say the other thing we ought to pursue is to talk about the environmental aspects of the project and how we approached it and the things that we did to make the project acceptable to the society that we're now in.

Building a Staff from Other Homestake Operations

[Interview 2: March 23, 1994] ##

Swent: We're continuing the interview now. When we stopped, which was a couple of months ago, you had superficially talked about the permitting process and the autoclave developments, and those things are two things that we'll have to go into in more detail. And also the feasibility study, I wanted to zero in on a little more.

Maybe a good way to get at that--you had mentioned just names of people. You had discussed Mike Attaway and you had mentioned Irma Taylor, Ray Krauss. You had mentioned Tim Janke, Roger and Pam Lucas, but you didn't say what they did.

Thompson: What they did? Yes. I guess all three were working at the Pitch operation of Homestake. It was about this time that that operation was planning or made the announcement that it was going to close, so I made a trip to Pitch to interview and talk to the people who were there. I was very much impressed with Tim and Roger, and Pam, I think, wasn't working at Pitch, but eventually she came to work for us as well.

Swent: Is she Roger's--

Thompson: Wife, yes, that's right. She's now in the human resources group out there at McLaughlin. And Roger is a supervisor in the pit. He was surveyor for us for many years at McLaughlin.

Tim Janke is really probably one of the key engineers on the open pit design for the mine, and he's still there. He

wants to get his kids through high school before he even thinks about moving elsewhere. I have to give him a lot of credit for that. He is primarily responsible, I guess, for the open pit design that we're using today, but he has since moved into the operations and he's working in the operations side--by his request. He wanted to sort of break the mold of being a staff engineer, and become more of a manager. And apparently doing quite well.

Swent: So these were all people that you recruited from the then-existing Homestake organization?

Thompson: That's right.

Coming into a New "Corporate Culture"

Swent: You had just been hired at the point that we stopped the other interview. You had just talked with Bill Humphrey and come on board, and been assigned mainly to do the feasibility study. Before we talk about the technicalities of that, let's talk just a bit about Bill Humphrey; he had worked for many years for Cananea, which is an Anaconda company.

Thompson: Yes.

Swent: Then he had gone for I think five or six years directly into the head office of Newmont, and that's where he was acquainted with you. And then he had just recently come to Homestake when he hired you.

Thompson: About a year, I think, yes.

Swent: So I'm just thinking that basically, his--to use the current buzzwords--he brought with him the corporate culture of Anaconda, primarily, I would think.

Thompson: That's true.

Swent: He was a short time at Newmont in the head office, and now new at Homestake; you come in new at Homestake, with Newmont background. Did this matter at all? You had been comfortable with the Newmont culture.

Thompson: Oh, sure. I had worked there for ten years. I didn't really think too much about it. We were a new operation, and when you have a new operation, you have a chance to do things at least

without too many constraints upon you, even in an old, established company. Homestake was primarily a one-mine company, although it did have Creede and some of the non-gold operations, but for many years, it relied on Homestake.

Swent: The Homestake Mine at Lead.

Thompson: The Homestake Mine at Lead, yes, thank you. I imagine that there might have been people who were disappointed they didn't get a chance at running the project or being part of it, but as we just talked, there were people elsewhere that we did bring on to work at McLaughlin. But it was different. It was one of the first open pits--I think it is the first open pit, really, that Homestake got involved with, other perhaps than the Round Mountain operation, and we didn't operate that. So it needed a new skill set that really wasn't within the company. And of course autoclaving was new to everybody.

Swent: But they weren't talking of autoclaving yet? Or were they?

Thompson: Yes, there was talk of it. We knew that it was refractory and there were problems, and that a lot of work was going on. By then, the word autoclave had already come out, as well as roasting, which was the other major alternative at the time. But I guess I didn't think of it as Newmont culture or not.

Bill Humphrey's Management Style

Thompson: Bill Humphrey was a great believer in having almost autonomous operations, where if you hold somebody responsible for production and performance, that those folks ought to have the authority to go with it. He didn't like to be surprised, and you always had to make sure he was well apprised of what was going on, and consulted when making major decisions, but he was a great believer in picking the right people and letting them run the operation fairly independently. And he carried that through here into Homestake, and I gather there wasn't that big of a culture clash, really, between the two companies.

Swent: It was an interesting time in Homestake's development.

Thompson: Yes. It was really kind of like busting out of the old Homestake, in a sense, that this was the first major new discovery it had had, particularly in its major field, which is gold. It had invested in the lead business and in uranium, and

other things that kind of came and went, but its core business of gold, this was the first breakthrough for it.

Swent: There was a lot of excitement.

Thompson: Yes, you bet. And of course, the gold price was helping a lot.
[laughter]

Swent: Right, yes. So you came August 1, 1981.

Thompson: That's right.

Swent: And the gold price at that time was quite high, but then it was on its way down.

Thompson: Yes. I think it was around \$600 or something, and fast deteriorating.

Swent: It went down rather quickly then.

Thompson: I think '82 was one of the low points, and then it kind of kicked up again and went back down in '85 to \$280, was at its lowest that I remember it since being in the industry.

Swent: Let's see, and in '80, it had been \$850. Then in 1981, the headlines were saying the price was dropping. In 1982, it hit the lowest level in several years. So you came in--

Thompson: At the bottom of its downward slide. Well, I'm not sure if I mentioned this on the first taping session, but I did enter copper when it was selling about 90¢ a pound, and [when] I left it, it was down around 35¢, 40¢, or so. Then I picked uranium, and that went from \$40 down to about \$15 by the time I left. Then of course I went into gold. So I've been the death of markets.

Status of the Drilling Program in 1981

Swent: [laughs] Not your fault, though. Now, the calendar that I have here says that the exploration had been completed in May, '81. So they had outlined the whole ore body--

Thompson: That's right, although there were still some drill rigs at the site. There was still some drilling going on, but the ore body was largely known by then.

Swent: Exploratory?

Thompson: Well, I guess you could call it exploration, or you could call it definition drilling. In order to more closely define the limits of the pit, there were areas where we needed some information for pit design purposes. We also did some drilling for structural analysis where we put in very expensive holes where you do oriented core, so that the core is taken out in the same orientation as you drill it in. From that, you can study the direction of the fracture planes and faults and things of that sort. We did that for the design of the pit slopes.

We also did some bulk sampling with wide-diameter core. I think it was six-inch core that was taken out in a portion of the ore body that was too difficult to sample by the underground declines that we drove. Consequently, we drilled this very big core and then used that for metallurgical testing. So they were really for metallurgical reasons that those big holes were drilled.

So there was still drilling activity, but it was different in orientation. We weren't trying to find new ore bodies; we were trying to understand the one we had.

We also did the underground bulk sampling program, I think. I'm trying to remember back, whether it was already started. If not, it was very closely after I arrived that we went underground and took a metallurgical sample. We drove two tunnels into the ore body and took what we needed out for the metallurgical test work that we did.

Swent: Were you using adits that had already been there?

Thompson: No, we drove some adits into different parts of the ore body.

Swent: You were driving new ones?

Thompson: Oh, yes. We used the contractor to do that work.

Swent: I'm trying to get a sense of when you came in--

Thompson: What all was going on?

Swent: --what was presented to you. You were not replacing anybody.

Thompson: No, not really.

Jim Anderson's Management Style

Swent: And you were working under Jim?

Thompson: Jim Anderson, that's right.

Swent: It was still under exploration, then?

Thompson: Exactly. Until we did the feasibility. This is the way that Homestake handles this aspect of our business and I guess it still does today. Until you prove that it's economic, it stays under the exploration group. And Jim Anderson actually had engineers and people like that to help him do that kind of work, and it was rather interesting. I enjoyed working for Jim. He was really a tough taskmaster. He really wanted to know just about everything. This was a very important thing to him, so I had to really work closely with him.

He would, for example, on the presentations to the board, we'd have dry run, and then he'd change some aspect and then we'd do another dry run to make sure we got it right. And looking back on it, I think I understand why. It was his discovery, the first one for Homestake in a long time, and it was pretty important to the company. He wanted to make sure it was done right.

So the result of it was, by the time I stood up in front of the board to explain the feasibility results, I could have done it with my eyes closed. Everything was just burned into my mind. And we did look at alternatives by the dozen, so that we really had explored all sorts of ways to do this thing, and felt that this was the best way to develop the project.

Swent: There must be a tension there, then, because you get so involved that you really want this thing to go.

Thompson: Oh, sure you do. We're all human.

Swent: Right. So in a sense, you're pushing your baby.

Thompson: Right. One has to guard against that as a manager. But there was a surprising--well, not surprising--there was a lot of skepticism about the project: the difficulties involved with the metallurgy, the high capital cost associated with the project, and people didn't think we could permit the project in California. It was just impossible. There was some industrial complex down near the Sacramento River, I think it was a Dow Chemical plant, that they had finally said, "Oh, enough of

this. We're going elsewhere," and they built a plant in some other state after years of permitting problems. So people felt, probably rightly so, skeptical that we'd be able to get the permits.

Swent: Who? Which people?

Thompson: Who? Well, within, and really more out there in the industry, people saying that this is not going to work out because you're never going to get permits in California. But nobody had really tried to permit a mine in California in a long time. In a sense, we got lucky. It was good and bad because, one, the regulators didn't know anything about mining, so we had to educate them about mining first, and then convince them the way we were doing it was right. Now they have a lot of expertise, and now they think they know more than you do, so it can work both ways. In our case, I think we benefitted from it, because we were one of the first.

Swent: You think that was a benefit?

Thompson: Yes, I do.

Swent: Maybe you made it easier for your followers.

Thompson: [laughs] Well, some people will say that we set a high standard and made it more difficult, in a sense, because it's more than people were doing and even today are doing in other locations. Because we did go a long ways, particularly in the design of the project, to make sure that the environmental aspects of the project were Cadillac in nature. We couldn't afford it not to work, because it would have damaged our credibility and our ability to do business in the state again, or to keep the mine running.

Apprehension of the Permitting

Swent: This is interesting, because as I went through and looked at the annual reports and some of the literature, they said a couple of years later than this that one reason their costs were so very much more than they had anticipated was because of the permitting process. They say that they were surprised by how long and expensive the permitting process was. In a sense, now you're saying that they had been warned that this would be maybe--

Thompson: Oh, sure, there was. Even before I came to Homestake, I was warned that I could be taking a fairly short-term job, because that mine may never go. There were people who were skeptical about the autoclaves. Plato Malozemoff was one. Many years later, he said, I guess to my dad, that, "Yeah, I guess Jack was right," meaning me, myself, that it did work. And of course, Newmont now has done work on autoclaves. Well, they considered autoclaves and decided to put in roasters, but they're familiar with the technology.

Swent: In Nevada.

Thompson: That's right.

I think the permitting problems that are referred to in that annual report is more, I think, to deal with the huge number required. There were something like 300 permits or something that we had to deal with, and this made things difficult.

Working with the Safety of Dams Agency

Swent: Well over 300, yes.

Thompson: Yes. And some of them were really difficult, like the Safety of Dams group. They were really difficult to work with, because apparently there had been some dam failures in the state in the past that caused property damage and loss of life, and they were so reluctant to make any decision or to do anything other than the absolute safest route that it guarantees that a dam is going to cost more than it should, and they did.

Like our water reservoir dam is a good example. They permitted first the footprint of the dam, and then they wouldn't give us a permit for the dam itself, only for the trench that we dug. And then they said we had to grout it, and we said, "It doesn't need grouting." We spent \$3 million trying to grout that thing before they finally said, "Oh, you're right, you can't use grout here, it does not need it." We just couldn't stop and argue because we were in construction, and that was really our critical path, they knew they had us over a barrel. Those are the kinds of problems that we ran into.

Swent: And didn't you have to build more dams than you had planned?

Thompson: Yes, we did.

Swent: Several small dams?

Thompson: Well, we found that it was so difficult to deal with the Safety of Dams people that--we had a sediment dam that we were planning to build below our waste dumps and we realized it would fall under the jurisdiction of the Safety of Dams people.

Swent: Is this a state--?

Thompson: Yes, it is, state agency. That we decided that if we broke it up into seven small little dams, we wouldn't have to mess around with those folks. And sure enough, that's the way we did it in the end. And in retrospect things worked out well. Looking back on it now, it was a pretty smart thing to do, because you get much more efficient settling of solids if you have a settling and you decant, and another settling and a decant. You do it seven times, so the water is actually better than it would have been if you had a single dam. But it was done for the wrong reasons, to avoid being under the Safety of Dams people.

The problem with them is that they wouldn't approve the whole structure. They only did it piecemeal, so then we'd start to work on it. For example, we had a chimney drain, which was to help to keep the phreatic surface or the water surface in the dam.

Swent: What is that? Phreatic?

Thompson: Yes. It's basically the water level in the dam itself, low. We started constructing it, and in the middle of construction, they changed it. They wanted it wider. I mean, it's those kinds of field changes that really cost us a lot of money. They were probably the most frustrating agency that we had to deal with in the whole process. There were inspections like you wouldn't believe, and each time an inspector came, we had to have somebody with them. There was one day that I remember, there were something like eight different inspectors from different agencies on site at the same time. It was just unbelievable.

But, looking at it now, that was sort of a taste of things to come, and that's probably pretty much the way it is today. If you're building a project, you have to deal with these things. Society wants it, so we have to do it.

Napa County's Inexperience in Dealing with Mining

Swent: You mentioned that the local officials had not had experience with mining, but actually, in this area, Amax had been--and, well, PG&E too--there had been geysers, the hydrothermal projects, and Amax just shortly before this had been requesting drilling permits in Napa County.

Thompson: But no mining operation, see. Geysers are quite different.

Swent: They needed permits to drill.

Thompson: Well, yes. No, I was thinking in terms of a mine development with its corresponding mining dumps and tailings plants and tailings impoundments, and things of that sort. No, I am not aware of any, other than sand and gravel operations, and there's some limestone operations.

Napa did have a fairly good level of expertise. They were a better-off county, they seemed to be able to attract professionals. It's also a very desirable location to live in, so they were able to attract some pretty high-quality people. So it wasn't that they were not capable; they had just never been exposed to mining. It's still the only mine in Napa, so unless somebody else finds one there--[laughs].

Swent: There had been a lot of mines earlier.

Thompson: Yes, that's right, but all in a much earlier time.

Swent: Not recently.

Thompson: No.

V THE FEASIBILITY STUDY

Baseline Studies; the D'Appolonia Report

- Swent: So just for the record, feasibility, to a lay person, it seems --I always think that you don't do anything until you think it's feasible, but the feasibility study that you're talking about comes along rather in the middle of the process.
- Thompson: It does.
- Swent: They had already done a lot of work. Had D'Appolonia started working on their report?
- Thompson: I think that was one of the first things that we did when I was here, was to make the selection of D'Appolonia, because I remember those interviews. It's right about that time frame. They had done some earlier work water sampling, and the background information.
- Swent: How had they been selected, do you know?
- Thompson: My guess is that it would have been done by Ray Krauss, although potentially David Crouch might have been involved. Ray was already on board when I came.
- Swent: Do you know how long he had been on?
- Thompson: How long? My impression is maybe a year or six months, something like that.
- Swent: So the environmental analyses had--
- Thompson: It actually started in 1980. I know that, that the first samples were taken in '80. And see, even now, in exploration projects, we have a project near Eureka that we're working on,

Homestake is. We're already taking samples there. So it's part of the exploration work and done from the earliest days.

Swent: Taking samples, you mean?

Thompson: Background or baseline determination.

Swent: Baseline--

Thompson: Yes, water, air, and that sort of thing. But I remember the interviews, and we made a conscious decision to separate the engineering from the environmental side, because we could have used, for example, Davy McKee to do the environmental as well, but we decided not to. We actually didn't have the engineer on board until 1982, June of 1982. That was Davy McKee.

Swent: Who made that decision to separate them?

Thompson: I think it was sort of consensus decision. Ray Krauss was involved, Dave Crouch. I think Dave was probably one of the ones that probably started the baseline work. I'll bet you it was Dave, looking back on it now, because he was the corporate environmental manager, and he would have been responsible for following through on something like that.

Narrowing the Field of Choices on Ore Treatment

Thompson: But to go back to your question of feasibility: you're right, they had done exercises where they had calculated some broad-brush economics on the project. What we were trying to do with the feasibility is, one, to determine what was the best method of developing. Should we use a roaster? Should we use an autoclave? What size of plant should it be? Should it be 500 ton per day, or the 3,000 that we chose? Where do you put the tailings pond and plant and the actual locations of the various components of the project?

Then we did economics on them at different gold prices and different sensitivities and that sort of thing, and then it made a recommendation which became the basis for our request from the board for the funds to build the plant. So the feasibility really was a document that supported the request for the expenditure, brought in all these various studies that were going on, put them all into one document that assessed all these things, reached a conclusion or recommendation--there was

more than one way to do this--and selected the one approach that we picked.

Swent: That must have been just a mammoth task.

Thompson: Oh, it was a fun time. Although, I'll tell you, after a while we had so many cases we lost track of which was which. I remember there was a fellow here in San Francisco, I don't remember his name, who was an accountant that did some of these computer runs for us. One day I went looking for a particular computer run to look at the backup to the results he'd given me, and he said, "Jack," and he pointed to a stack that was about, oh, maybe three feet high, and he said, "Somewhere in there you will find it." [laughs] And these were all the runs that he had done, the various alternatives.

One option we looked at was just simply do direct cyanidation, and even though we would only get 30 or 40 percent of the recovery, it might be more economic than spending \$200 million to build a plant. Well, it didn't; we opted not to do that. We tried flotation, and we had some marginal success with flotation, so we ran those, but the recoveries weren't good enough. Then we started looking at roasting and quickly got onto autoclaving, and then it was really a question between roasting and autoclaving. That's what it came down to.

Roasting was the way that miners would have done it in the past, and indeed they still do today. We have a roasting plant in Australia, and recently, until we sold it, we were involved in one in Canada as well, at the Golden Bear. So roasters are still a technology you could use today, but it requires extensive gas cleaning and environmental safeguards. Given the complexity of permitting in California, we felt that it would be very difficult to permit, and it would have had to have been a clear benefit to go with the roasters.

Laboratory Testing the Autoclave System

Thompson: And when we really looked at it, we realized that by the time you add on all these environmental controls, that the capital cost was also going to be very high. So there wasn't that big of a difference in the capital cost: it was really a question of, do we have confidence in ourselves to go to the autoclaving? The technology had never been tried. We opted to do some laboratory test work, and we designed a small pilot

plant where we had miniature little tanks and autoclaves, etc., to test the process.

Swent: Where did you do this?

Thompson: Where was that done? We did that at Sherritt-Gordon up in Fort Saskatchewan, Canada, and they ran the test work for us there.

Swent: Was that still in Newmont?

Thompson: I don't think it was by then. No, we chose them because they had some experience with autoclaving. They used autoclaves in the refining of cobalt, I think it was, or nickel, so they had some of these autoclaves there in a nice laboratory. They were very strong on the process chemistry, which is really the heart of this process. It was a chemical process. So they really brought the strong process background.

 Their mechanical design left something to be desired, so we opted to go with Davy McKee and go our own route in the design of the autoclaves rather than use Sherritt's approach.

Swent: You keep saying "we". How much authority did you have, or how much responsibility did you take for making some of these decisions? When you came in, some decisions had been made.

Thompson: Had been made, yes.

Swent: Do you remember--

Thompson: Well, we had a pretty good idea what the ore reserves were by then. That work was mostly done by the time I got here. Now, I did get involved in it myself just to make sure that I agreed with the calculations.

Swent: How did you do that? You looked at the geology reports?

Thompson: Exactly, and reviewed the work that had been done, did some check numbers. We calculated it several different ways.

Swent: But there were changes made in the numbers all the time, weren't there?

Thompson: Sure. An ore reserve is kind of a fluid thing, because it depends on the price of gold that you use, the cost assumptions that you use, and that sort of thing. That's where computers come in so handy.

Checking the Computer Analysis with the Polygonal Method

Swent: I was going to say, your computer knowledge was--

Thompson: Very helpful. But interestingly enough, in the very end, the final check was to do it by hand to see whether it compared to the computer or not. And that was in the early '80s--we were still in the transition where people didn't understand how computers worked and the software involved. All the work that had been done had been done in computer, and then at the very end, Bill Humphrey, particularly, wanted to see it done by hand, so we did it by hand.

Swent: And by hand, you mean with--

Thompson: Somebody actually sat down and did preliminary work and calculated areas and volumes, and we calculated out using traditional, what's called the polygonal method, using polygons. In other words, you split the distance from hole to hole, and then you average the grades inside this polygon that you create. It's the way that it had been done for many, many years, prior to the computer. The computer does the same thing, but you just don't see it. It's all done in the electronics there. It was a good check.

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Thompson: What we now have as the method that they're using at McLaughlin is sort of a combination of the polygonal method but done by the computer. So it's kind of interesting how the circle comes all the way around.

Swent: You still don't quite trust the computers.

Thompson: Well, a model is a model, and their models are appropriate for one particular type of ore deposit, and may not be appropriate elsewhere. And that's where really the science has advanced so much, is that there are many tools that you can use, and it's a question of selecting which type of software and what type of model you create.

Swent: You had to put in all those variables--thousands of them, I guess.

Thompson: Well, we had to pick some to fix. Towards the end, there, we said, "Okay, look. Do any of these other alternatives make sense?" like the flotation and all that. So we did an analysis and we said, "No, it really doesn't, so let's stop working on

those and let's just focus on roasting versus autoclaving." Then we did more detailed work, and that work was done by not Davy McKee but by other engineering companies--A. H. Ross and Dravo. They just did some preliminary capital and operating cost estimates for the options that then we used as the basis of our computer modeling.

Using Charts to Choose the 3,000-Tons-per-Day Option

Thompson: But you're right, after a while you have to fix things. And one of the things we did is use charts, so that you can do several cases and get several points on a chart and draw a line, so you don't have to run 100 cases. You can run four or five or six and then develop a chart, and from that chart, you can really get a feel for what the trade-off might be in the size of the plant versus life of the mine and the net present value, or something like that. So we used charts quite a bit in trying to get a feel for what was right.

That's how we particularly chose the 3,000-ton-per-day option because you can run them at different tonnages and you can see the curves on internal rate of return, on net present value, cost per ounce, and things like that. And there are peaks. You sort of pick one that catches the most of the peaks.

So it was a good exercise. I learned a lot during the course of it. I think the feasibility was a little more inclusive than I expect my guys to do it for me now. There was a lot of stuff in there, but we were trying to put it all in one location. One of the problems that people have had was that there were so many different documents and studies that had been done and never really been brought all together in one comprehensive look at the project, and that's what we did. So it's a bit long, I think, looking back on it.

Looking at It in Retrospect: A Pretty Good Study

Swent: How do you feel about it now?

Thompson: I feel good about the numbers. Looking at it now, it doesn't have the nice WordPerfect computer graphics and all that that

we have nowadays, but when you really look at the numbers, I feel pretty proud of what we did.

Swent: It came out pretty much on target?

Thompson: Pretty good. The things we missed--in the capital [cost], we had a lower capital than it finally cost us to build the plant.

Swent: It was quite a high percentage difference, wasn't it?

Thompson: Well, it depends on which number you compare it to. The biggest problem with the feasibility is that we wrote it before we had the engineering very far advanced at all. We didn't hire Davy McKee until June of 1982, and the feasibility was done by then, so we did all this on very preliminary work. In the little note that you sent me, you said, would we do anything different? And the answer is yes, I would. I would have called that a pre-feasibility, and I would have let the engineering go forth, and once we had what's called an engineering estimate, where you actually have flow sheets, and you have equipment lists, and you can make phone calls and get quotes for pieces of equipment and things like that, that engineering estimate is at the point at which I would then go and ask the money from the board.

If you compare it to our initial preliminary work, yes, the project cost more. If you compare it to the engineering estimate, we were very close. So it's a question of timing, as to when do you go the board to ask for the money, really.

And on Eskay Creek, which is a similar complex project that we just made a development decision on here earlier this year, we waited until we had the engineering estimate in hand. So there's a lesson learned there. John Ransone would be able to tell you a lot more about the comparisons to capital and all that.

The operating costs have been spot-on to what we said. Even after all these years, they're actually operating at a lower cost per ton than we had forecasted. So they have not only offset inflation, which has been steady throughout this whole time frame, but they're doing better. So we feel very good about that.

Swent: They changed their milling process.

Thompson: Yes, they have expanded to the plant, and we have the flotation plant and all that. But even before we did all that, we were right at the cost per ton, and the recoveries have been better

than we had forecasted. So those aspects worked out okay, and that's really the heart of it all.

Predicting the Gold Price: Poor Guesses

Swent: And the gold price?

Thompson: The gold price didn't. In retrospect here, I have in my notes, we used \$450 if I remember correctly, with a case for \$600. And of course, we haven't seen anything like that since then. It would be an interesting exercise to see what the average price of gold has been for the life of the project, but I'm sure it's in the \$360 or \$370 or something like that.

Swent: It hasn't been up to \$450 at all, has it?

Thompson: I don't think so.

Swent: No, I think not. I don't think it's ever gone quite up--

Thompson: So that's been a disappointment. But you know, we actually didn't really pick a single gold price. We had big debates here, and in the end, we gave a range. There was a low gold price, which was \$400 or something like that, and then the \$450, and then the \$600, and we figured we'll let each director decide which one he was going to look at to make his mind up. But looking back on it, we were caught up in the excitement of the bull market that existed for gold, and we had just been at \$800, and people predicting \$3,000. It's easy to get carried away, and I guess we did. On Eskay Creek, we're being much more conservative, to say the least.

Deciding the Size of the Operation

Swent: Would you care to comment on members of the board? Were there any that were very much pro or much con that you felt you had to really talk to or talk into this?

Thompson: Nobody really stands out that way. Doug Fuerstenau was a very strong supporter of the project. He felt that the process was going to work and all that. I remember Dr. McLaughlin was still coming to the meetings. He was just excited, period. No, I don't really remember anything that stands out. See, I really didn't have that much contact with the board. I made a

couple of presentations, and that might be a question better asked to Harry [Conger], I guess. I didn't know them like I do now. With all the years of dealing with them, I know them much better. And I'm before the board all the time.

Swent: When you made the presentation, there was--

Thompson: I hardly knew them at all.

Swent: --no person that was a devil's advocate for it?

Thompson: Oh, well, Dick Stoehr, but Dick Stoehr wasn't on the board. But Dick has played the devil's advocate on this project from day one. And I still think that he believes that we should have done it differently, and he would have opted for a much smaller operation: less risk in his mind. There's no right or wrong here, there's just differences of opinion. Professional people can agree to disagree professionally. There's sometimes more than one right answer.

The problem that I saw with a small operation is that you still had the large infrastructure. You still had to have the road, you still had to have the water reservoir, the power line. And all of these things really become sort of like your big fixed overhead. If you have a small little operation, the amortization on a per-ounce basis, or say on a per-ton basis in a particular year, is difficult. I think that the ratio of fixed versus variable costs would have been a burden on the project.

So it's just different ways of looking at it. If we had done what he had suggested at 500 tons per day, we would still have a long life left on the project, and maybe caught more up sides on the market. So there are pluses and minuses to the various approaches to things, but that seemed to be the biggest debate, really, more than anything else, was size of the project. Not so much autoclave versus no autoclave.

Now, you asked how much independence we had in making these decisions. Some of these we did bring in Harry and Bill very much into the decision-making process.

Swent: Harry Conger?

Thompson: Harry Conger and Bill Humphrey. For example, the autoclave. When we did the test work, we kept them apprised of what we were doing, and they knew what we were doing, but we had a meeting, I remember very clearly, in San Ramon, where we said, "Here are the alternatives and here is our recommendation."

Swent: That's San Ramon, at Davy McKee--

Thompson: San Ramon, where Davy McKee's offices where.

Major Decision on the Autoclave

Swent: So this was after you had selected them?

Thompson: Yes, that's right. And we were really fairly much committed to the autoclave by then. We said, "We have to make some decisions," and one of them was what materials of construction to use on the autoclave. Because there was an oversupply situation at the time, titanium was quite cheap, so you could have built an all-titanium autoclave. Or the alternative, which is what we finally did, was a brick-and-lead-lined autoclave.

We had this big meeting trying to decide what to do and not to do, and we decided on the brick autoclave because it was one that was already tried and true. We weren't breaking ground there, as well as with the whole process. We didn't want to do too many exotic things in the plant.

So then the question became, do we pilot the process or not--in a pilot plant, a big pilot plant? Say, 100 tons per day or something like that. We debated that and laid it out, all the various alternatives, and we decided not to; to jump straight from the laboratory size to the full size of the plant. We consciously knew that we would have some trouble getting started, but in the long run, we felt it would be cheaper than to do it on a piecemeal basis to get up to the full-sized plant. Harry and Bill were involved in that meeting and those decisions we made that day. So that was a key meeting on the nuts and bolts of how we did things.

The decision to skip the pilot plant was made because we had enough confidence that the chemistry was right. It was pretty simple chemistry, but what are you going to test? You're not going to test the chemistry. Then you're going to be testing the materials of construction, and the pressure and things like that, that you design for. Well, you could do that in the full-sized plant, and that's what we in the end did. And yes, we made some mistakes, so then we fixed them, and we were off and running.

Startup

- Swent: Again, I think there was a statement made that the startup costs were more than had been anticipated.
- Thompson: I'm not sure that's right. Our startup was relatively typical of such periods--always difficult.
- Swent: Also a time--
- Thompson: I think it's time, yes. But you know, you look at--Rex Guinivere had a chart that I still use to this date from a study that was done for, I think it was the World Bank or somebody like that, that had the startup time versus percent of design capacity achieved for major projects around the world. They did a massive study, and they had a huge database. They showed this sort of ramp up that you have before you finally get to design capacity. Some plants never get there, but on average, if you plot our plant, it goes right down the middle of that thing. We were very typical. All of us--I don't think there were too many of us on this project that had built a new plant. There weren't that many new plants, particularly in the gold arena, but our startup was fairly typical, when you look at it that way, in retrospect.

But yes, there were some frustrating times getting it started. We never really felt that it wasn't going to work; it was just that it took time to work all the bugs out of the plant. Mostly with materials of construction, scaling problems, and we actually made it a little bit too complicated, the control systems around the autoclave. So in the end, we simplified them. We threw out these various control loops and made it simpler to run. It was a reflection of our fears, I guess, about the autoclave, but in the end, it proved unnecessary so we went with a much simpler control scheme.

The Distributed Control System

- Thompson: We did a few other things in the plant that were fairly new. One was the distributed control system, utilizing computers to control the plant. We decided not to build an analog backup, which is what people were doing at that time frame. In other words, the new computers were wonderful, but in case it didn't work, we wanted to go back to the old ways of doing it, which was the analogs with push buttons and little lights on the big

board. And we said no, if we did that, we were never actually going to get the computer system running, so we opted not to put the analog system in. Distributed control means that there are little computers out in the plant that handle the particular circuit, and then all the information is returned to a control loop and run from a single location. But that was something that was new at the time.

There weren't too many of those, because we were afraid that we were going to have too much pioneering in this plant. We had enough as it was with the autoclave. [laughs]

Selecting Davy McKee as the Construction Engineers

- Swent: Let's backtrack again. Let's go back to when you first took over and you began working. You still hadn't selected your engineering company.
- Thompson: No, we hadn't, that's right.
- Swent: Studies were being made.
- Thompson: Yes, I was involved in that. It was a collective decision. John Ransone really headed up that selection process. That original engineering company was A. H. Ross. They're no longer in existence.
- Swent: Is that Al Ross from Toronto?
- Thompson: Yes, but the fellow that did the work for us was not him. It was Bob Pendreigh that did that work. He was the engineer on our project. Bob is still around; he now works for another engineering company.

But we invited submittals from a variety of engineering companies, and then narrowed it down to a short list. I don't remember how many there were. It was six or eight or something like that. And asked them for proposals. We prepared a document that laid out the scope of what we wanted them to do. It was engineering and construction management and procurement, so the whole works.

We received these proposals, we interviewed the firms, and then John prepared an analysis, a great big spreadsheet that compared the pluses and minuses of the various companies

that were proposing to do this work for us. That's how we ended up with Davy McKee.

It surprised some people that we switched engineers, because we started out with A. H. Ross and, while they made the short list, they didn't get the final contract.

Swent: Al Ross died right about then, I think.

Thompson: But the company was still going, see. It was his company and Bob Pendreigh, in particular. The reason we had used him, was because Bob Pendreigh had known about autoclaves from another field. He was involved in the nickel autoclaving. We selected Davy again for the process chemistry, the fact they were near to us here, which was handy, the pricing was right--it was pretty competitive, the bidding between the companies--and the people they put on it. Generally, that's what it almost always comes down to, is who are they actually going to put on your project. And I think they did a good job for us. At Eskay, we used them again, so that reflects on what we felt about their earlier work. We also knew them. We knew their strengths and weaknesses by then. [laughter]

You know, everything changes. It has been many years, and now they're a different company. Everything changes.

Swent: That was one of the first big decisions?

Thompson: Yes, that we did. See, that 1981, we were running the laboratory pilot plant and we were selecting the engineer, we were writing the application, and as a result, we had to make some decisions. This was when we made decisions like the siting of the tailings pond and the plant away from the mine.

Swent: That was a change, I think.

Thompson: Yes, it was. Initially we looked for sites near the mine.

Swent: Were you the one who made that change?

Thompson: Well, I was involved. You're giving me more credit than need be. Really, these types of things were really done on a group basis, team basis. I can't remember too many cases where we had to go ask Bill to help us make a decision. If there were differences of opinion, we negotiated among ourselves. By ourselves, I mean people like John Ransone and myself were really the two that ran the project, and then with Ray Krauss and the environmental fellows. John didn't work directly for me, but we sort of all worked as a team.

Deciding Not to Contract the Mining

- Swent: Were there decisions to be made on the pit itself, the mine, or the mine plan?
- Thompson: It's a little more straightforward.
- Swent: It stayed more or less the same?
- Thompson: It did, yes. The big question there was whether we would stay with the contractor or buy our own equipment and do our own mining, and that was the big decision that we had to make there.
- Swent: When did you make that?
- Thompson: It would have been--oh, let me think--that probably didn't come until '83 or thereabouts, because we wanted to see how the contractor would do. And they did a darn good job, but we realized that we had at least ten years or more, and that's the business that we're in, is mining. We got an excellent deal from Caterpillar for the equipment--good prices. That sort of made the decision easy, and we bought our own equipment and hired our own crews and staffed up that way.
- Swent: But when you first came in, everything was still being contracted out?
- Thompson: Yes, that's right.
- Swent: You mentioned that you were living in Napa, you thought for six months, and it ended up to be--
- Thompson: Two years, yes. Because of the central location it was a good place to be. Napa was close to San Francisco, an hour and a half or something, or an hour in good traffic. Sacramento was only a couple of hours away. Lake County, Yolo County--it was really central to the whole thing. We moved there in '81, so in '82, we started the permitting, and then '83 is when we finally got the permits to start with, and then that's when we moved up.
- Swent: You were working, though, under provisional permits?
- Thompson: Well, yes, for exploration. That's right. But the construction permits that we received, we received piecemeal. That was another problem that we had. But that's a reflection of the beast that we're dealing with, is that it's very

complex. The responsibility is distributed widely, I guess, here in the United States, and California in particular. So even though we had the permits from Lake County, for example, for the plant and all this, the last permits we got were for the water reservoir in Yolo County, on Davis Creek. We made a risky decision, I guess, to proceed with the construction without those permits in hand. If we hadn't gotten them, it would have been really difficult. But we felt confident that we would prevail in the long run, and indeed we did.

Swent: That's where you had your most severe opposition.

Thompson: That's right. And it was unexpected, because all we had in that county was a water reservoir, and we were actually going to improve the water quality, because all the drainage from the old mercury mines was going down the creek. Now we were going to hold that back. So it was quite a surprise that that turned out to be the problem. And maybe that's why it was a problem, because we spent a lot of time in Napa and in Lake talking to community groups and environmental groups and the Sierra Club and the Native Plant Society and all these sorts of groups in a very proactive approach. While we did some of that in Yolo, we didn't do as much as we did in the other counties, until it became a problem.

Swent: It's not proactive then, is it?

Thompson: Well, I gave lots of talks there, but they were sort of like preaching to the converted. We were talking to the Rotary Club and things like that. They were going to be your supporters anyway. But really, it was a fairly small group of people in the Capay Valley that formed the core of the opposition. I don't think we would have ever convinced them; I don't think we ever did, some of them. But their positions were fairly extreme, and it just took time for that to become evident, for the system to work that through.

They had their say, and there were things that we had to do or accept in order to get the permits from Yolo, like the citizens' sort of committee to oversee the monitoring of the project and all this. I'm not aware of that happening elsewhere until we did it. Now it's fairly common, certainly in Canada, and I imagine the same thing is true here now, where there are citizen groups or community groups that receive regular reports on the project. So that was a bit of a surprise, but it all worked out in the end.

Speaking to Community Groups

- Swent: When you came in, Ray had already begun his community work?
- Thompson: Yes, that's right. Ray basically handled that side of the project.
- Swent: And Don Gustafson I think did some.
- Thompson: Oh, Don was great. They had done a fantastic job, both of them, in preparing the ground for what we were doing, and really almost from the day I got here, Don had already made arrangements for me to go talk to people. He said, "Okay, Jack, it's your turn now." [laughs]
- Swent: Who were you talking to?
- Thompson: Well, these were the Rotary Clubs, the Lions Clubs. They're always hungry for speakers. Oh, I don't remember the numbers, but I probably easily gave thirty different talks in those couple of years--Sacramento, West Sacramento, Davis, Woodland, places like Esparto, Williams--what are some of the other towns? Of course, all of the Lake County towns: Kelseyville, Lakeport, Napa, Calistoga--any place where there's anybody who felt that they were going to be impacted, we were there talking to them.
- Swent: Hill and Knowlton came into the picture at some point.
- Thompson: They came in when this Capay Valley thing started getting to be a problem. They helped us with the political campaign that eventually developed in Yolo. What happened there is that they put up a referendum proposal on the mine. I don't remember what the wording was, but the net effect was that it would stop the project. They tried to get it on the ballot, so we had to run a political campaign in the county to mount support for the project. Hill and Knowlton helped us with that; they were very good at that. We opened up an office in Woodland and beefed up our activities in the county.
- Swent: Bob Reveles?
- Thompson: Bob was involved on that, yes. Bob really was the guy who worked with Hill, and they ran that aspect of it. We were involved and would go to the wine and cheese tastings, and then we had open houses and talks. One thing I thought was really good is that we developed support from some unlikely places. In the Capay Valley, we found some farmers that didn't think

that was such a bad an idea, and that it might actually improve the water quality and all, so they became our backers.

Swent: Do you remember who they were?

Thompson: Oh. I remember their faces, but not the names. Ray would remember their names. There was also a professor at Davis, Bob Matthews, I remember him.

Swent: Was he the one who was so opposed?

Thompson: No, no, he was very open-minded. Initially, he was just inquisitive and wanted to know, and Ray made a convert out of him, I guess is what it amounts to. [laughs] I won't say that he was a supporter to the point where he would stand up and say, "This project should be built," or that, but he would testify, and say, "No, that's not the case." He was a water quality expert, so he was a good expert witness in that sense. And being from Davis, he had a lot of impact.

Swent: When you were giving your speeches to the Rotary Clubs, did Hill and Knowlton help you write your speeches?

Thompson: No, no.

Swent: You wrote them yourself?

Thompson: Yes. I don't write speeches, so basically what I did is I collected a group of slides and used them to talk from, and depending on the audience, I would always try to find out what sort of people would be in the audience, and you tailor your talk to your audience.

Swent: But you did this on your own?

Thompson: Yes. Well, Don Gustafson was doing the same thing, and I just followed the same pattern. Ray gave talks primarily to the environmental groups, and I handled the clubs and things like that. Of course, we made presentations to the various political entities--city councils, county boards of supervisors and things like that--on numerous occasions.

We, early on, and this was one of the key things to our permitting, I think, established a technical review committee. We were the prime instigators of this--this committee that included all the various entities and agencies.

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Swent: I would like to hear more about this. Who were the first people that you had to approach?

Thompson: Well, really the three counties, although I would say Napa County was really the first one, because we thought that everything was more or less going to be in Napa County when we started out. It wasn't until later that we realized, one, that the deposit went over into Yolo, and then two, when we did the plant siting and decided to put the plant in Lake County that we realized that Lake County was going to be involved. So Napa was really where we put most of our effort early on.

Plant Siting in Lake County

Swent: Why did you decide to put it in Lake County rather than Napa by the mine?

Thompson: Strictly environmental reasons. When we started looking for a site to dispose of our tailings and found the best in Lake County.

Swent: This had not been decided until you came on?

Thompson: That's correct. The work was going on as to looking for sites. We were carrying out a very systematic analysis of potential tailings sites, and I think D'Appolonia was the one doing that work, although I'm not absolutely sure of that. But there was a study being done on these various potential sites for the tailings. It had to be big enough to handle all the tailings, and it to be, in our minds, capable of being zero discharge. We were hoping to avoid having to put an artificial liner in.

So it was a tall order. And some of the best places we found turned out also to be areas where there were sensitive plants, and those were the sites that were near the mine, had these very sensitive plants. And the soils and the rock weren't the strongest, because the serpentinite rock that we have in the general area is a very weak rock, and it makes for a difficult construction of an earthen dam.

Swent: So if there had been no environmental concerns, you would have put your processing plant right by the mine?

Thompson: Sure, that's the preference.

Swent: Just put your dump on the other side of the hill, or the bottom of the hill?

Thompson: Or something like that, that's right. And that's the way it would have been done ten years earlier, probably--not that long ago. But we started really thinking about these various issues, and don't forget, we were trying to design a project we could permit in California, which meant really the highest standards that industry and current technology can provide. And I don't remember; it was like seventeen or eighteen sites that we looked at. We did a numerical ranking of these things, assigning points for environmental aspects, for costs, suitability of nearby borrow material, those kinds of issues, and whether we owned the land or not, and if we didn't, could we get it?

Swent: You didn't have the land secured yet?

Thompson: We didn't have the Lake County site. In the end, we had to buy it. We bought the Seabarm and McCosker ranches. So we looked at all, and we really realized that this site was a superb site. It was at the headwaters of the drainage, so there was little inflow of water into the tailings pond, so that makes it easier to control the water level in the pond. We still put a diversion ditch around it, but it was a small diversion ditch because we were near the headwaters.

We found no continuous groundwater table. What we found were pockets of what turned out to be fossil water. We could tell by doing isotopic studies that this water was fossil. In other words, it was probably squeezed out of the rock during its formation. We did pump testing, we drilled a well, and then we surrounded that well with a cluster of other wells. We would do pump tests to see what kind of water flow we would get out, and we would get no response sometimes in another hole that was only fifteen feet away, and that kind of thing.

So it turned out to be almost no water table, almost no surface water coming in, the rocks were quite tight, so the permeability was low, a channel to the little area where we could build a dam relatively cheaply, and you start putting all those things together and we realized this is a darn good site. In the end, we realized that it was actually good enough that if we had had a class 1 hazardous dump, we probably could have gotten it permitted. We didn't have that kind of material, but that tells you how good a site it was.

Swent: But it was how many miles away?

Thompson: I think about five miles--4.8 miles or something like that--so there was a problem there in the sense that you had to then pump throughout the life of the mine, or somehow or other get the material there.

Once having chosen the tailings pond site, where you put your plant isn't as important, because it can be anywhere along that pipeline corridor. We decided what we'd do is put it as close to the discharge as possible so that if you have a spill, it's a spill of fresh ore without cyanide in it, whereas if it's at tailings, it's a spill with cyanide in it, because we use cyanide in the process.

Swent: So if you had processed at the pit--

Thompson: You would have had a greater potential of a cyanide spill. Even those low levels, it's still cyanide. So then it was primarily a question of how much earth work you had to do to create a site, and we ended up putting it on top of the hill there, and that was based on engineering studies of how much civil work we had to do.

Swent: The processing plant was on the hill there.

Thompson: That's right.

Swent: Your tailings site was--

Thompson: In the valley. We did look at another valley that was there which on first sight looked pretty good, but we found a very shallow water table and bad soil conditions, and we would have had to do an awful lot of foundation preparation and that sort of thing, and that's when we went up to the top of the hill. We were also able to use some of that material for building the dam and things like that.

So that siting decision was an important one, and of course, that put us into Lake County, which added Lake County to this whole thing. As it turns out, there was some good that came from that because, one, where most of our people were going to live and where most of the impacts from a socioeconomic was going to be was Lake County. At first, they didn't see much benefit. They saw a lot of down-side, because they would have their schools impacted, their roads, and all this kind of stuff, but the taxes were in the other two counties. Well, now they had their share of the taxes, and all of a sudden, things got a little bit easier.

Swent: They get the major share.

Thompson: Yes. Well, Napa and Lake are pretty close to each other, because Napa taxes you on the minerals in the ground, as well, so they get their share of taxes. Yolo is the one that really gets the least, because there is very little on their side.

But Napa was the real focus of our primary attention, even throughout, because they turned out to be the lead agency in the permitting.

Forming the Tri-County Environmental Data Advisory Committee

Swent: Yes. How does that come about?

Thompson: Well, we have to back up a little bit, because first, you have to remember that we created this committee. We talked the agencies into forming EDAC.

Swent: Was this your suggestion?

Thompson: No. Well, I was there, but Ray really was the person behind this, Ray Krauss. Ray suggested that because of the complexity of the three different counties, three different air quality districts, two water quality districts, and all these kinds of multiple agencies that we had to deal with, that we would set up a committee. It was called an Environmental Data Review Committee or something like that. We called it EDAC.

Swent: I think it was "advisory".

Thompson: Advisory, that's where the A came from, right.

Swent: It didn't come spontaneously from the county commissioners or supervisors?

Thompson: No. I'm pretty certain that it was Ray's idea. They agreed to this, and what we said was, "Look, initially what we'll do is we'll share with you the baseline data that we're gathering-- environmental data, our plans." It met regularly. We would do things like bringing proposed programs or studies to the committee. For example, when we started out, there was just a minimal environmental program. Well, we wanted to expand on the background data, so we developed a protocol as to what we would do in the way of sampling and said, "Okay," and to the committee, we made a presentation: "Here's what we plan to do. What do you think?"

Then, we got some comments: "Well, you should sample for this as well, or that." You know, everyone's got their own little special biases, so we modified the plan and then carried it out so that later on when we presented the results nobody could say, "Well, why didn't you look at this or that?"

It was, "Well, you were there, you were part of that decision to do it this way."

Swent: EDAC was made up of people from the three counties?

Thompson: Yes, three counties.

Swent: These were people who were already supervisors, or did they appoint somebody?

Thompson: I think they assigned one supervisor, and then there was mostly staff people. There would be like the county engineer and the environmental guy from each of the counties. The Bureau of Land Management was involved, because we had some federal lands. I remember there was a Susan Skinner that was involved in it. She was a very sharp lady that was representing the BLM [Bureau of Land Management] on the committee.

Swent: Did Homestake hire some staff people to help you? Somebody told me that at one point there was a person in the Napa office, in the Napa County--

Thompson: That's right, and also in Lake County, and also in Yolo--all three counties.

Swent: --actually paid by Homestake. How in the world could you put that one over?

Thompson: Actually, I think that came from the counties. They said that their workload was so huge to review this project, and I'm sure it was the case, that it was impacting other things. There was a lot of to-ing and fro-ing, and there was a lot of concern that if we did the work, it would be biased. In California, you had to have this independent, third-party kind of review.

So what we did is said, "All right, why don't we give you the money, and then you hire somebody?" They went through their usual routine of posting the job and all this sort of thing, and yes, we basically subsidized their review of our permit.

Swent: That's amazing.

Thompson: Yes. But it bought you time. Otherwise, it would have taken much longer to get the permits. And really, it's small money in the overall picture.

Swent: Sure, but I'm just surprised that you weren't attacked on the basis that you were paying for your own review.

Thompson: But see, the people were not under our control at all. We gave the money to the county and the county hired them. That's how you get that independence out of it. And they hired some pretty inexperienced folks who had to learn about mining and a few other things like that, but basically, they were fairly decent people.

It was a tough review. Just about everything was looked at. But the fact, I think, that we had done our homework and what we had proposed had anticipated most of the objections that could have arisen is why we were as successful as we were with the permitting. If you think about it, we filed our permits on August 27, 1982, and on September 2, 1983, we started earth work on the mine site.

Swent: So you got them in about a year.

Thompson: In one year, one year. We didn't get them all in one year. As I mentioned earlier, we made a decision to start some of the work before we actually had all the permits in hand, but I think the last of the permits arrived February 1984. I don't remember now--no, here it is, I've got it now: August 3, 1984 was the last permit that we got. That was the Davis Creek water reservoir.

Swent: Because I had the feeling that it took lots longer than that to get them.

Thompson: Well, if you think about it, we started about a year earlier. We started this committee about a year earlier, we had been talking to the counties. We would make regular presentations to the board of supervisors. Every so often we would go up there saying, "Okay, now we've got a better idea of where things are going to be; let's talk about it." We went through how we selected the tailings pond, and all these types of things.

Difficulty of Land Acquisition

Thompson: The one that was the loosest to the very end was the water supply, because we didn't have the land upon which we eventually built the water reservoir, the Davis Creek reservoir. We had some tough negotiations with the landowner that had that property. Bob Kauffman was his name. What finally did it for him was that we developed an alternative which did not use his property, and we filed that as our option on them when we filed our permits. Then he realized that we could do it without him. Then within a very short period of time after that, we had the deal. Denny Goldstein and I negotiated that one.

He was an interesting character, to say the least. Very distrustful of big corporations in general, not just Homestake, but corporations in general, so we had to first gain his confidence or trust, and then we were able to make the deal.

Swent: You actually bought it from him?

Thompson: We bought the ranch, yes. It was a \$3 million purchase, if I remember correctly. I think we spent about \$18 million on land all together.

We wanted a couple of things. One, we needed to buy the land where we built the plant site, and that was the McCosker ranch.

Swent: What had already been bought when you came on board?

Thompson: Not much. It was mostly mining leases--

Swent: The Wilder property?

Thompson: No. Wilder was in negotiations when I first arrived, and that was being done by Bill Casburn and Don Gustafson. Shortly after I arrived was when the deal was concluded. I was involved only peripherally in trying to put a value on the royalty. I'm trying to think of the details here. We bought down his royalty in half in a subsequent set of negotiations. Initially had a four percent net profits royalty--I don't remember the numbers--but he had a higher royalty, and then a little bit later, we went back and bought half of it back. I was involved in that part of it, but not the initial purchase. That was Bill Casburn and Don Gustafson.

Swent: So you bought the land--

Thompson: Right.

Swent: The mine.

Thompson: Then the other key ones that we bought were the Kauffman ranch, the McCosker ranch, and then the area where we put the waste rock dump.

Swent: This is where the tailings pond--

Thompson: Exactly. And then there were a whole bunch of little properties around there, because we wanted a buffer zone. We picked 2,000 feet, I think it was, or something like that, from any tailings. We sort of drew a big circle and said, "We'd like to have anything inside this circle." So we bought a bunch of small properties. We were successful; we created that buffer zone. And I think that has helped our permitting, or did help our permitting, because when you start doing predictions of dust levels and things like this, the computer models are fairly rigid that the governments use, and having that buffer zone makes a big difference.

I was also involved in all the land purchases along the road. We bought a bunch of property along the road to straighten the road out and obtain the right-of-way for our new road. I was very heavily involved in all those acquisitions. There were thirty-eight property owners or something like that. Well, I had people doing this--I'm not Superman, I'm not doing all these things. We had a fellow that did the negotiations, and then when he ran into problems or something, I might come in. But I would have to approve the purchase price.

We were trying to hold the line, because if we gave too much to one, then all of them were going to want it, and that sort of thing. We even had one fellow that would only sell if we would agree to give him the highest price we obtained on any of the other parcels. I mean, this is the kind of stuff we had to deal with. And in the end, there was a couple who never did sell to us, and the county had to use their condemnation proceedings to get the property. It was a public road. Actually, we were doing it for the county as their agent.

So those were the big acquisitions.

Swent: What about the Reed mine?

Thompson: The Reed mine, yes. That was already in as a mining lease that we had, I guess Don or Bill Casburn or somebody, had already gotten. The one that I was involved with getting started,

although I didn't finish the negotiations, was the acquisition of the Gamble ranch, and that was much later. We did it for exploration and for waste dumps and things like this. I started the dialogue and got them started on negotiations, but then I moved on, and it was finished by Ron Parker and his people, and Denny Goldstein, I think. So yes, land acquisition was a big part of what I did in that early time frame. And on and off throughout, actually, I guess, if you think about it.

Swent: It is essential.

Thompson: Yes. So I think we started on this line by talking about what was going on in 1981, which was the test work, the feasibility work, the engineering. All that started to jell when we finished the feasibility, which was in early '82. Then we went to the board and asked for their approval, and they gave it to us.

Swent: What was the date on that?

Thompson: Oh, let me think. Maybe June, something like that. Or maybe it was May. I'm not sure.

Swent: Well, McKee got their contract award--

Thompson: On June 1, yes.

Swent: June of '82, so that--

Thompson: Right. Probably a little bit before that, it would have been. Of course, the board was already pretty familiar with the project.

Filing the Application, August 1982

Swent: It didn't happen just overnight.

Thompson: No, that's right. These things, you've got to bring people along so that they're comfortable with what you're proposing.

So that whole feasibility effort was sort of a culmination of all this work. It didn't all finish there, but that's the culmination. If you think about it, we filed our application in August, so it was just a couple of months later. So there was a lot of writing. I remember towards the end there, we closeted ourselves in an office, and I think it was

over at D'Appolonia. They had the word processor, and we were going through making those last-minute changes, and it was Ray Krauss, Denny Goldstein, Dave Crouch, and myself, and I guess that's about it. Oh, and the fellows from D'Appolonia. We hammered out all those volumes. It was just incredible. Particularly the one that described the project and its impacts. That was the key document.

Swent: So this was called--what was it called? This is the environmental impact--EIR?

Thompson: No, that was done by an outside company hired by the counties. What we filed was, I guess you'd call it the application. I don't remember what the official name was.

Swent: "Environmental Report", I think, or something.

Thompson: Yes--I'd have to go back and look at the cover of that thing. It's like six volumes or something.

Swent: The D'Appolonia report.

Thompson: Yes, that's right.

Swent: I spent a lot of time with it. I think it's called the "Environmental Report". I believe so.

Thompson: Right. But see, we submitted that to support our application.

Swent: That comes before the--

Thompson: The environmental impact, that's right. We submitted this along with the application to proceed with this work. Then the counties designated Napa County as the lead agency. The one that was really pushing for this was the Bureau of Land Management. They looked, I think, at the various counties, and figured Napa could do the best job.

So then they were the head of this effort; they were the lead agency. They hired, and we had to pay for this, they hired a firm, and the name escapes me now, but it was a firm similar to D'Appolonia that did an analysis of our application and wrote an environmental impact report. This was the third party review. Now, we could have put in an application that was skimpy and let them do more of this work, but we felt that by putting in all of this information up front that, one, it keeps it from wandering too far afield from what's really important; two, you don't have a vacuum that somebody else is

going to fill, you start out with a stated position and a rationale for what you've done or propose to do.

Enlisting the Native Plant Society

Thompson: And you sort of help guide the direction of the analysis, and more so than if you said nothing about, say, sensitive plants. We might have been given some sort of condition in our permit that we would have regretted. Instead, we first went to the Native Plant Society and said, "Can we have your help in identifying these things?" And they actually did, and still, I think, to this date, go out there and help us do the census on the plants and all that. We sort of got them involved at a very early stage so that the sensitive plants never really became a major issue. Yes, it was raised, but with the Native Plant Society on our side saying, "No, they've done all they can. This is reasonable. They moved this and that." And we did. We moved pipelines and roads and things like that to avoid plants. It is easy to do when it's on paper. It's harder to do when it's already built. Things are much more difficult to change.

So that sort of approach is why we had such a voluminous report that we filed. We wanted to give them everything, not to leave a big vacuum there. And I think it worked to our benefit, and that's still the way we do it. As Eskay, we did the same thing, so we'll see if we get our permits. We should get them shortly. [laughs]

Lessons Learned from Previous Mistakes

Swent: Do you remember anybody saying anything about--well, of course, you had had the experience at Dawn, but I'm just thinking that in Colorado, Homestake had not--

Thompson: Done so well? [laughs]

Swent: Done so well, yes.

Thompson: To put it mildly.

Swent: They sort of learned some lessons the hard way.

Thompson: We got a lot of advice. That's what I'm saying, is that none of this is done by one person. It can't be. So we had Dave Crouch, who had been through the Pitch hearings and all that sort of thing. The stuff we ran across here was cream puff by comparison.

Swent: Partly because you did it differently.

Thompson: Did it differently, that's right. You learn your lessons. As society is changing, so do the people who work in the industry like mining. We were changing, too. I think Bill Humphrey, if he had been left alone, would have done it the way he was used to doing it.

Swent: Just go in and do it?

Thompson: No, I don't think so. He can't break the laws, but I don't think it would have been done quite the same. I mean, we had to coax him along to make sure that he understood why we were doing it and the approach that we were taking. We were very much helped by Harry's comment at the very beginning: he said, "You will meet or exceed the environmental rules and regulations that exist." He wanted this to be a showcase.

Harry Conger's Guidance to "Do it Right"

Swent: So he had--

Thompson: Oh, clearly, early on. And the board, he had the board approve this approach, so we had clear guidance to do it right. And that was started before I even got here, so I was part of it, but I give the credit to Harry. He wanted to do this right.

And it's close to San Francisco; you don't want to be embarrassed in your own back yard and everything else. These folks lived here, so they know and were familiar with the problems like Dow had had and others, that it pays to do things in this, I guess, more modern way, maybe, is the way to put it. It's a different decade, different way of doing business--different society.

We worked on our allies, and that was important. You have to build a consensus. I won't use the word political, but you have to build goodwill and support for the project. The talks that we did, I think, were helpful, but the natural allies are people like those who need work. In Lake County

particularly that was a big issue. They had the lowest per capita income of all the counties in California, so they saw high-paying jobs and a way to improve their lot in life.

Commitment to Local Hiring

Thompson: Their big emphasis was local hiring, and they were really afraid that the same thing that happened at the Geysers might happen here, and that is, they became a union job, and the union hiring hall was in Santa Rosa or Richmond. Those are the two union halls. One of the reasons that we took the path that we did, and that was a merit shop, basically, where we said, "We don't care whether you're union or nonunion, so long as you hire locally."

Swent: A merit shop?

Thompson: Merit shop, that's it. Shop talk. But the union, particularly the trades unions that were trying to organize the project, didn't run a very effective campaign, because they failed to realize that the support that we had was from people who were desperate for jobs, and here they saw it as their opportunity. We set up training courses with the local college, so then the local college became one of our supporters.

Swent: That was the community college in Lake County?

Thompson: Yes, the community college there. We actually leaned on our contractors and they donated the time and the equipment and the people, and we donated the materials, and we built a shop for the college so they could train welders, electricians, helpers, carpenters, and concrete form work. We had these classes.

So then we went and talked to the local unemployment office and said, "We want to do some training. Can you pick out people for this program for us?" They were the ones who supplied us the people. I developed a personal relationship with several of the people there, and we made sure that we got the better candidates, I guess would be the way to put it. They sort of screened them first, and then gave them to us.

The Mitigation Agreement with the Schools

Thompson: So that's how you build allies. The local school districts were very much concerned about the impact, first during construction and then during operations, of an influx of children into what were already crowded schools. They had portables and everything else there. So we negotiated a mitigation agreement with the school district--actually, all the school districts involved--based on the number of children that actually entered the schools that worked for us, and there was a capital payment and an operating payment. I don't remember the formulas now, but it was around \$5,000 per student or something like that.

But we were concerned that we would be charged for things for kids who were already there and all this, so we had to run a census, which also served our purposes of proving that we were hiring locals. We were successful; we did hire--I think an average of something like two-thirds locals, as defined as having been living there the year prior to us starting the construction.

The schools were quite happy with this arrangement. It provided them money that they needed to upgrade their classrooms.

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Thompson: So that was more support-building, I guess would be the way to talk about it. I joined the Rotary Club, got to know many of the local leaders and businessmen. Of course, all the shopkeepers were all for this.

Swent: Which Rotary Club was this?

Thompson: The one in Clear Lake, Rotary Club.

Swent: You mentioned high school. Where was the high school that was most impacted?

Thompson: Well, there were two. There was the Middletown High School and the Clear Lake High School.

Swent: Both in Lake County?

Thompson: That's right. There were some kids that went to the Kelseyville High School, but that was much less. The money was actually paid to the school district head, who then split it up

among the different superintendents or the different schools there. It was based on the number of kids in each particular school. They ran a census and we ran a census, and we compared to make sure we had the right numbers. It's hard to do. People come and go. We had quite a few people, particularly during the construction period.

Swent: You reached a peak of 1,200.

Thompson: That's right.

Swent: And some of them would have come in with families.

Thompson: Some did. I would say most of them didn't. The impacts were less than had been predicted for the construction period, but they were more than had been predicted for the operating period. We had a social economic expert--I don't know what you call those guys--do some estimates, and he underestimated one and overestimated the other.

Swent: Well, D'Appolonia did an estimate.

Thompson: That's right, but they hired somebody to do that. I remember that guy's face, but don't remember his name.

Swent: I think that their estimate was way low on construction people.

Thompson: Construction people, yes, but in terms of kids, I was speaking of the kids in the school district. I don't remember how much we paid, but I'll bet you it was at least \$500,000 or something over the time period for all the schools in the area.

So that's how you build consensus. We even did some of that in Yolo County, although obviously not enough. We used some contractors from Yolo County, and they were quite supportive of the project, obviously. A big trucking contractor and then some small earth work stuff that was done. Another large contract was for temporary irrigation piping from an outfit called Rain for Rent who came from Yolo County. We had a lot of dust control during the project, so that's where we got those guys from. So that's how you build support for a project, and it worked.

Unwelcome Rain, February, 1986

Swent: Speaking of rain, was weather a factor in your planning? You had a particularly tough winter there.

Thompson: Tough, that's right.

Swent: Tough weather there.

Thompson: When we didn't want rain, of course it rained, and then when we wanted it to rain, it wouldn't rain. Yes, we started the construction in a quagmire of mud, really, and it was mostly due to the timing of the permits--thinking about it, we started in September. Well, that's the beginning of the rainy season. We were hoping for something different, but it just didn't turn out that way.

And then when we had the reservoir built, we had hardly any water. But fortunately, we had a big storm on Valentine's Day. It must have been, when, 1986? A big storm. I was trying to go skiing with my family and I never made it up to Tahoe. I don't know how many feet of snow fell, but it was a lot. I turned around and came back. I had my radio, and I was listening to what was going on at the mine site. They were having trouble, so I took everybody with me, my kids and all. We were out there eye-balling the damage. We lost a portion of the road that washed away, but the reservoir filled up in one day--whoosh! We had thirteen and a half inches of rain. We were quite concerned; we didn't know what would happen to the dam if it filled up that quickly. Well, nothing happened. It held, and it was no problem, and everything worked.

Satisfying the Downstream Water Users

Thompson: Another thing that did surprise us was downstream water users. Some we had identified. There was a winery directly downstream of our mine, and all of our drainage passed through their lands.

Swent: In Yolo?

Thompson: This is in Lake and Napa County. It's the Guenoc Winery. Orville Magoon was the owner. They're a family originally from the Hawaiian Islands. They were missionaries there, and apparently got quite wealthy with land, and then traded the

land in Hawaii for this old Spanish land grant which is the Guenoc ranch. This is the one with the Lily Langtry background and all that.

Swent: Oh, yes.

Thompson: Well, they were immediately downstream of us. This fellow was a marine architect, so he was constantly traveling all the time. He was really hard to get hold of, but we worked out a good relationship, shared the information, told him what we were doing--same sort of approach.

The one place where we were a bit surprised was further downstream where Anheuser Busch has a brewery way down there below Lake Berryessa. They were a big concern, so we had to deal with their concerns to make sure that they did not intervene opposing the project.

Swent: How did you finally work that one out?

Thompson: Face to face with them, and with the help of the Yolo irrigation district, I think it was. A fellow that was there was sort of an intermediary or facilitator. We dealt with them directly, reached an agreement to do a certain amount of monitoring for them in addition to the regular monitoring we were doing, and they withdrew their objections. They came up at a public hearing and just surprised us. "Who are they?" [laughs]

Swent: Understandably terrified, weren't they?

Thompson: Yes. Well, they had a lot of money, and they could have been a very effective opponent, but we convinced them that we were doing it right. They hired a firm of their own out of Palo Alto, I remember that. They were associated with Stanford University somehow. They did their own independent review of what we were proposing, and it was still early enough that we could make changes if necessary. I don't remember there being anything specific that we did there, other than some extra monitoring.

Assuring the Safe Shipment of Hazardous Materials

Swent: There was also something about how you shipped your cyanide in, how you brought it in?

Thompson: But that was already in the works. That became an issue in almost all three counties, was the traffic to the site. We agreed to bring hazardous materials, which includes cyanide, up I-5 and across on Highway 20 into Lake County, and then down the road that we built to the mine site, so it did not go through the Capay Valley, it did not go through Lake Berryessa area, and it did not go through Napa. Indeed, we forced all of our construction traffic to go up there generally. Only if you were, say, in San Francisco itself or in Napa did that become a problem for some of the suppliers.

But yes, we restricted the way we brought supplies to the site and we brought in our cyanide only in the summer when the streams were not flowing. As time went on, we changed that, but with additional controls, basically escorting the trucks in. But when we first started out, we did it only in the summer. We had a spill team ready to go, and the spill kits ready to go. Technically speaking, it was not our responsibility. Legally, it's the responsibility of the transporter, which in this case was DuPont. We brought them in in these special containers which are pressure-tested and all that sort of thing, so they were very carefully handled, to say the least.

Swent: Perception is everything.

Thompson: Oh, absolutely, absolutely. That's right.

And we had some problems during the construction period with some truckers trying to take shortcuts. We had to be pretty tough on them to make sure that they didn't. We actually set up a roadblock at one point to check and see where the heck they were coming from. They were trying to go through Capay Valley, because it looked shorter on the map. I guess it actually takes longer, but it looks shorter, so somebody coming from out of town wouldn't know, and they might try to take the short route.

Swent: Why did it take longer?

Thompson: Curvy road. It's a small road.

Swent: It was surfaced, though, wasn't it?

Thompson: Yes. But it's curvy, as it follows Cache Creek as it flows through the Capay Valley. It's the discharge of Clear Lake that goes through there, so it just goes like--curves up--quite slow. And you go through all these little towns, also.

Swent: So the only real road work that you did was on the Morgan Valley Road?

Thompson: That's correct. Although we did do some repair work on the Berryessa road, but that was fairly minor. Helped the county out a little bit.

We did have to put in a traffic light at Lower Lake, and a parking lot, and a temporary parking lot, and a left-turn lane. All the construction parking was there, and then people were put on buses, and then the buses brought the people to the site. We used old school buses from the Lake County Transit people. There was a private corporation in Lake County that had all these buses.

Swent: That was to minimize traffic?

Thompson: The traffic on the road, which was an issue during the permitting. And it actually worked well for us, because we were also trying to build the road at the same time, and it would have been really tough to have all those people on the road at the same time. But the buses alone were bad enough. We had a whole bunch of buses. That was a lot of money for that. Those people became supporters of the project. That's how you build support.

VI STARTUP, JANUARY, 1985

Pouring the First Gold Bar, 4 March 1985

Thompson: So we finally got it built. The first ore through the plant was in January of 1985. What we did is we started up the plant in two steps. The first was the nonautoclave portion of the plant we started up. We ran oxide ore through the grinding circuit, which was amenable to direct leaching. It just wasn't very much of it, but we had enough to start the plant with. So we started on oxide ore and poured the first bar of gold on March 4, 1985, the day before my birthday. [laughs]

A lot of people don't know it: we actually did pour one two days earlier, but for practice because we melted it again! "Well, we'll make sure things work."

Swent: Had to have a photo op.

Thompson: That's right, for all the big shots. So we did that. That was kind of neat, to have people like Bill Wilder holding up his bar of gold, and Harry and all that. It was fun.

Unfortunately, Dr. McLaughlin wasn't there for that.

Swent: He died just--

Thompson: Just before.

Swent: New Year's Eve, 1984.

Thompson: Just a couple of months before.

So then we continued the construction of the autoclaves. They were brought in, and everything was completed September of '85. By then, we had kind of worked the kinks out of the rest

of the circuit, and the autoclaves started up. We could focus on that and get that going.

Swent: Had you moved? Where were you living?

Thompson: We had moved to Lake County. We moved to Kelseyville in 1983, just before the school year started, so we moved in the summer --July or August or something like that.

Swent: You had found a house?

Thompson: Yes, we bought a house in the Rivas, it was called. They overlook the lake on the flanks of Mount Konocti, above the Konocti Harbor Inn, if you know where that is.

Swent: Yes. Nice place.

Thompson: It really was, yes. The only problem was it was a long ways from everything. It was about a half hour to town, so the kids had a long bus ride for school, and any after-school activities. Linda was on the road a lot. We wore out a lot of brakes on those mountain roads.

Swent: What grades were they in then?

Thompson: Oh, boy, let me think. Heather would have been in--let's see, she was born in '78--she would have been in kindergarten. She was starting out. Michael was in preschool, and then Michael started his kindergarten. We were there five, six years.

Swent: Elementary school.

Thompson: Elementary school level, that's right. Never actually did any high school there or anything.

When we moved to Moraga, Heather went into a middle school and Michael was still in elementary school.

Swent: Were you still running the operation when you moved to Moraga?

Thompson: No. That's when they asked me to come down and do the international side of the company, and I started going to Chile and Australia and all those kinds of places.

Swent: You probably welcomed it, in a sense.

Thompson: It was a good time, that's right, from a schooling standpoint, particularly, because it's a typical rural, small-town atmosphere. Not very many kids really moved on to university.

We wanted something with a little bit different emphasis at that point, so one way or the other, we would have moved, is what it amounts to. So it worked out great.

Redbud Hospital Provided Adequate Care

Swent: What about health care?

Thompson: You mean in Kelseyville?

Swent: That's such a big topic these days. Did you have to provide any--was this an issue in your permitting and so on?

Thompson: Not that I remember. There's a very nice hospital there. There are a couple of hospitals in the county. There is the Redbud Hospital, which I was a director of the for-profit side of the company.

Swent: Redbud?

Thompson: Redbud, like the flower that's up there. It's gorgeous. They're all flowering right now. They had a very good hospital right there, very close to where the Morgan Valley Road started. There was ambulance service and all that. That really wasn't an issue.

Swent: The company didn't have to provide an increase there.

Thompson: No, nothing. Not that I remember, anyway.

Upgrading the Lower Lake Water System

Thompson: The only other thing that we did have to work on was water. In the Lower Lake Water District, Lou Hodge was the fellow that I dealt with there. We ended up helping them, but it was sort of like a "You help me, I'll help you" type of thing. We used water from their district for the construction, because we didn't have the water reservoir done. We needed a lot of water for construction for keeping the dust down, compacting things, concrete, all those kinds of things. We laid a pipeline alongside the road all the way from Lower Lake and bought the water from them. Then the portion that was inside Lower Lake, we did to full public utility standards, so that when we

finished our job, they had upgraded their facilities and helped them out that way. So that was another one of those local benefits derived from the project.

Swent: So it was available, then, to people who lived along the way?

Thompson: They had a fairly undersized system with a lot of problems, and we improved their intake and put in a new water main through town. So they upgraded their main. The old one was leaking. No, along the road what we added was a power line.

Providing Electric Power for Local Residents

Swent: You said you bought the--

Thompson: We bought a right-of-way, but there were still people living along the road. What they got was a power line. We built a 115-KV line, which was the big line for our plant. Underneath it we put cross T's and put up a smaller line for local distribution, so the people along the road got power for the first time. Telephone came later. They now have telephone along the road as well, but that was years later. When we first started out, we used microwave telephone connection, and then they laid a line--I think it was a fiber optics line--that provided service on a hard line.

Swent: So you upgraded things.

Thompson: Oh, yes. And most people along there for the most part are very happy with us. There was one lady that wasn't. She was editor of the Sunday section of the San Francisco Examiner Sunday paper.

Swent: Do you remember her name?

Thompson: Oh, shoot. No. It might come to me. But she just had a summer place up there, and she didn't want any traffic through there.

Swent: Of course not.

Thompson: It upset her peaceful existence. It's true. Sure, we ran a lot more traffic through there, but in the end, not much she could do. Yes, we impacted her lifestyle on weekends. There's not that much traffic on the road, really, but she was right, particularly during construction.

When we put in the power line, there were some that were very concerned about disturbing their fields and things like this. And we did use helicopters to build the line. We went out there and had crews dig the hole by hand, and then they dropped the poles using a helicopter. And after we did it all, we realized we probably saved some money. The contractor says that he felt that, given the particular topography where we did this, that at the very least, it was the same cost. If not, we may have even saved some money doing it that way. So it's amazing how sometimes some of these things open up different ways to do it. It was one of these big Sikorsky helicopters. It was kind of neat to see it work.

Swent: But you told the contractor--

Thompson: That he had to do it that way. That's right. It was a condition of getting the right-of-way across this guy's property. [laughs]

Swent: Oh, dear.

Thompson: So what else did we do? Yes, that sort of sums up--there may have been others, but that was the type of things that we did. Some people call it extortion or blackmail.

Swent: Necessary P.R. [public relations]

Thompson: Some of it was P.R. It cost money; it all cost money, but it's just part of doing business in this century.

Disturbing the Marijuana Cultivators

Swent: Was there any thought that this would impact on crime?

Thompson: I remember it being mentioned, but it didn't become an issue or anything.

Swent: It isn't in any of D'Appolonia's reporting, but I wondered whether anybody has done any analysis of that.

Thompson: I'm not aware of it. Lake County is a relatively high crime area anyway.

Swent: Is it?

Thompson: It's an area where people go, and there is a lot of marijuana growing, and there were several amphetamine laboratories that were discovered while we were there, and that sort of thing. It's a very poor county, but it's cheap to live in, so you get all this riff-raff at times. Not that everybody there was that way, obviously, but there is that element. So yes, there's relative high crime in that area.

Swent: I guess you think of construction workers coming in as a very rowdy bunch, but I've also been told that the impact of the industry was to reduce crime. Well, one thing was poaching.

Thompson: Oh, sure, and marijuana farms existed, at least in our area. There was one fellow--I'm trying to think of his name--well, it's amazing how quickly my mind deletes these files, like, "I don't need this guy's name any more." But there was one fellow that had a small ranch. He called himself a mushroom farmer--no, earthworm farmer, that's what it was. He grew earthworms. Well, yes, those nice beds were where he also grew his marijuana. Then he'd get his seedlings, and then he'd transplant them out in the BLM public lands--had drip irrigation systems and everything else.

Our surveyors found this, and he was quite upset at it. He said really we were crimping his style--his lifestyle, his cash crop. So he, one night--I guess Don Gustafson probably told you this story?

Swent: No, he didn't.

Thompson: He got pretty mad and was tooling around threatening to do harm to Bill Wilder and myself, I guess, and Homestake, in general.

Swent: I haven't heard this at all!

Thompson: Oh, yes, he was a bit tanked up, I think. The police got him, and it turned out he had a weapon on him. He was a former convict and wasn't supposed to have that, so he ended up back in jail for a while. So then I didn't hear much more about him. He was an impressive guy. He showed up at the public hearings and would stand up there and talk about how it was going to impact their lifestyle. He never did mention the marijuana.

Swent: Earthworms.

Thompson: Yes, earthworms. He's just a little old farmer, type of thing. But he was just trying to protect his particular lifestyle. He was a biker type, a great big man with great big arms and

tattoos, very impressive, imposing fellow. Intimidating is another word. But quite friendly, actually, other than that one incident where he apparently had too much to drink. Fortunately, none of us were there. [laughs] This was pretty early on.

Swent: Could have been dangerous.

Thompson: Who knows. A lot of people are more talk than anything else. So, no, that's about all that I'm aware of in the crime side, really. Not a major issue.

The Transition from Exploration to Operations: McLaughlin Task Force

Swent: Shall we talk about the shifting from exploration to operations?

Thompson: Yes. The question is, how did the transition from exploration really come to operations? And it really worked fairly well, simply because I was working for exploration and then simply had a new boss later, and that was the guy who really brought me. Bill Humphrey was instrumental in bringing me to Homestake, but I worked for Jim Anderson first. I worked for him until the feasibility was done.

I guess one way to sort of give you a flavor of how the transition occurred: we had a committee, a task force we called it, the McLaughlin Task Force, whose composition changed as the project moved along. Initially, it was very heavy with geologists and things like that, and then it was more the environmental guys and the engineers, and then it turned into more the operators.

Well, initially the chairman was, say, somebody from the geology side, and then the chairmanship changed eventually to the point where it became the operators and myself that was in charge of the committee.

Swent: You haven't mentioned Bob Lear at all. Was he on that?

Thompson: He was on the committee, on the task force, and in charge of the process development. Bob Lear was out of our Golden office, and headed up our metallurgical group, so John Turney, the fellow whose name is on the patent, was working for Bob Lear at the time. So actually, Bob's group was quite heavily

involved in all the metallurgical stuff that was going on. He had Richard Kunter, Bob Lear, Phil Walker, and Kurt Carey. They formed the team that developed the process that we eventually used. They came up with the idea of using the autoclave, and they're the ones who ran the test work and the pilot plant and all that sort of thing.

When the engineering took over, John Ransone was more the person in charge of that, so the emphasis changed more to the engineering side. Then during construction, John was in charge of the construction field activities, and then I was there with him in a sort of a matrix environment.

Bob was really good at laying out flow sheets and arrangements of the various steps in the plant. He had done that before, and it really showed. He added a lot to the whole project that way.

Swent: Who was your task force person on the mine design work?

Thompson: That would have been Mike Attaway, I think, from early on. And then Bob Previdi was involved, but Bob was more into the corporate things. Mike Attaway was sort of the fellow who actually did all the work, did the preliminary designs. He did a document that was sort of the mine plan that included analysis of how much equipment you would need and what the costs would be and the strip ratio and all that sort of thing, and the mining schedule, which gave us the grade for future years and what the production would be and all that sort of thing--where you put the waste dumps, and that kind of work. Mike Attaway was the one who did all that.

I saw Mike very recently. He is now the manager of the Castle Dome Mine, which is also here in California, working for Viceroy. He's a general manager, and he's vice president for Viceroy, so he's done quite well--still in California. So he's applying those things that he learned then, still today.

Swent: Yes. That's quite a battle down there.

Thompson: Yes, they're the ones with the desert turtle and all that sort of thing.

Swent: They've had quite a time. So this task force, obviously the people changed, but--

Thompson: Yes, depending on what was going on at any time. We still use that approach. We had a couple of other projects that we established committees like that. You initially start out in

geology sort of oriented, and ore reserves, and then engineers, and then operators. It works, it works. And since I was here throughout that whole transition I saw the process in action.

Swent: You were the continuity.

Thompson: That's right. So that helped. And Mike was there for most of it, and he stayed. He was actually working for Jim Anderson as his in-house engineer, and I just borrowed him permanently when the time came. [laughs] And John Turney as well. John was actually with the engineering group out of Golden.

Certification of the Environmental Impact Statement

Swent: So just how--what are the mechanics of the EIR/EIS?
[Environmental Impact Report/Environmental Impact Statement]
You send it in? It's a stack of paper?

Thompson: Actually we submitted our application. The county hired a firm to write the EIR/EIS.

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Swent: So there was a third-party review.

Thompson: They prepared a draft report, that's right. They issued a draft which went out for public comment, they had hearings, and people were able to submit comments.

Swent: You had not had the public hearings until then?

Thompson: We had had some. There were quite a few. I forget how many.

Swent: I'm sure there were.

Thompson: Ray could tell you. But there were maybe twenty different public hearings at one point or the other throughout this whole thing. But these comments were received, and every question was numbered. Every one of them was responded to in the final EIR or EIS, so it became a bigger document. You had the comments attached as an appendix, and then each question would have a label on it saying, "See page so-and-so of the final report," so everybody had their say and their opportunity to ask questions, and then they were addressed.

And then they had to be certified. That's sort of the word they used for the acceptance of this report. They accepted or certified the report. Napa County had to do it, each of the counties had to do it, and the BLM.

Monitoring Turns Into a Monster

Swent: Were you nervous about this?

Thompson: That was the key permitting step. We were fairly confident that we would get it. The big issue really turned out to be later in the monitoring, where we had said that we would be willing to do monitoring and whatever the statutes required. Well, it turned into a problem. See, this was a case where we had a vacuum, and it turned into a monster.

Swent: You hadn't anticipated this?

Thompson: And it became the big thing. "Well, how are you going to protect us and all this and that?" I guess we should have thought of it, but it's easy to forget. A lot of things that we did right don't come to light, and it's when something that we forgot to do--it's the way things used to always be done. You were always told what the monitoring program would be by the various agencies that are responsible for protecting the public. Well, in this case, the public wanted to know ahead of time what the monitoring program was going to be, and we didn't have it.

So in the end what we did is we prepared one. I think it was D'Appolonia that was very instrumental in that.

Swent: I was just thinking, shouldn't your consultants have done this?

Thompson: Well, but again, you are generally given that by the agencies during the final permitting stage. In this case, we developed a monitoring plan, a very extensive monitoring plan, and then submitted that for comments. Later it was part of the Yolo County Advisory Committee's job to review the monitoring program and comment on the results and make recommendations.

As it turned out, we did some things right. We had a fairly extensive program in the early years, and then automatic reductions in frequency of sampling once you proved that it isn't a problem. So it automatically became cheaper with time, and since then I think it's been renegotiated a couple of times

and amended, but it was a really heavy-duty monitoring program, much more than really needed to be.

But that was the big issue, and it was this approach to have a monitoring program approved ahead of time and reviewed that sort of broke the deadlock of getting the permits for the project. All of this developed as a result of comments deriving from this EIS environmental impact statement.

Swent: And that was certified in July of '83?

Thompson: Right, which is why in September we could start construction.

Swent: Then you had to apply for your permits.

Thompson: Right. Well, we had done some preliminary work on permits. Technically, we were supposed to wait until you had the EIR certified, but we started work earlier in parallel. We got the counties to agree to this procedure. This is when we paid them the money to hire the extra people so that they could run things in parallel, so we were already filing grading permits and road construction and things like this before the EIR was certified. Therefore, once it was certified, it didn't take very long to start receiving some of the permits. Otherwise, you've got everything sequential and it takes forever to do it. It costs you money and it's risky because what if you don't get your EIR certified or if things head a different direction? Then you may have wasted a lot of time and effort.

At Eskay Creek, we're doing exactly the same thing. There, it's called a mine development certificate, and again, we're not waiting. We've already filed our request for the reclamation plan and things like that, so that they're running in parallel. The only way that works is if you're sure you're going to do it, and that the agencies feel confident enough that this project is going to go ahead that they're willing to put the work in it, because otherwise they're wasting time, too--which is why, technically, you're supposed to wait until it's all done.

But, yes, it was a complicated--we had a critical path for the permits. [laughs]

Swent: Yes, you haven't mentioned that word yet, but that was the--

Thompson: Yes, we had a very elaborate computer-generated critical path diagram.

Swent: Did you have it up on the wall?

Thompson: Oh, it covered a whole wall. [laughs] And then there were pieces of it that were more detail. This is one of the things that Davy-McKee did do for us that was quite useful. Paul Morgan, who was the environmental guy from Davy-McKee, was the fellow that sort of put it all together and made it work. He was looking at it more from a nuts-and-bolts standpoint: "What piece of paper do I need before I can install this piece of equipment?" So he worked backwards from the construction schedule, worked backwards to see when we had to have the permit applications for a particular scrubber or whatever, and before he does that, you have to have the engineering done, so it's all very carefully laid out plan.

It worked, for the most part. There were some times we were scrambling about trying to engineer something on the fly, but those were the exception. Remember what I said earlier, that you shouldn't really file your applications until you've done some engineering, because once you file the applications, the agencies think that this is sort of the way it's always going to be. They don't realize that there might be a better way to do it, or that plans change in response to what you find out in the field. It was difficult to make changes once we had applied for a particular permit. They were quite inflexible, in that sense of the word, so if you wait until you have done more engineering, then you're more assured that what you're asking for is what you're actually going to do.

The "rice paddies" was a good example. We started out with one great big dam, and then went to those--

Swent: The little dams.

Thompson: The little dams with the seven overflows, and all that. We call them the rice paddies, and they look like them now. They've got these weeds growing on them and stuff, looks like rice. So that's one of the negatives of going so far ahead without having the engineering done.

We did it consciously, by the way. We knew we were going to get into that pickle, but we were short time schedule. Harry really wanted us to use a fast track--Harry Conger--and I think his gut reaction was a good one, because if we had taken a long time to do all this stuff, I think it would have been more difficult to permit the project, I think, because you give more time for people to organize opposition. I don't mean we pulled one on anybody. I mean, look at all the public hearings we had and all that. But as people go on, they learn how to manipulate the system, how it works, and how to delay. Delay is the enemy of most industrial projects. I think it would

have been tougher and tougher and tougher the longer and longer and longer it took. So do it really fast and quick and do it right, but do it on a fast track. The compromise we made was to proceed with permitting before we had the engineering. So that made it difficult at times.

Training the Operating Staff

Swent: And you were hiring people, of course, all the time, too, weren't you?

Thompson: Yes. We wanted as much as possible to utilize the future operators. If we had somebody that you needed, say, for the construction, we tried to hire people that then stayed and did things later in the operation, so that there was continuity and they would know that they would inherit what they built. They wouldn't take a short-term view of some things that might hurt the operations later on. So we took over on the mining side fairly early, and then when we took over grinding and all this, we were there and ready to go.

The autoclaves--that was really interesting. We hired four brand-new metallurgical graduates, metallurgical engineers, to be our control room operators, so they went straight from college into a control room. But we wanted somebody with the metallurgy and chemistry in the process in that room, and I think it was the right decision--we'd do it again--because nobody really knew what we were going to get into when we fired up these autoclaves. Yes, we had all kinds of experts, but we had this guy who was there all the time, and on night shift. There would be a metallurgist there making sure that if something happened, that they'd be there to explain what happened and understand the ramifications of what he was seeing.

The rest of the crew was all trained locally. We had a very elaborate training program. We used help from corporate by borrowing Gary Boyer. I don't know if you remember Gary. They lent him to me, and Gary developed the formal training program and operating manuals.

Swent: Where did you borrow him from?

Thompson: He was in the lead business [Homestake's lead venture in Missouri]. He was here in the office, sort of like Kurt Gilg is now, a staff senior engineer. And he was primarily watching

the lead business in those days, but he was given to me. He hired a company called Performance Associates, who were out of the Bay Area here to do the work.

It's a small world: one of the principals in it I worked with back many years before at San Manuel. We used to play basketball together on the same team. He's an excellent basketball player.

But this group developed operating manuals and then training manuals for the project. Then we had a computer program that simulated the operation of the autoclave, and we had the fellows on the control panel. We'd program in an upset of some sort, and they'd have to make the right moves on the control panel in front of the computer to control as if it was a real upset. So it was simulated. It was like a flight simulator, except we had a simulator for the autoclave. That was quite useful.

So there was extensive training. We used almost all local hires, with a sprinkling of experienced operators but not very many. We started with a core course on general safety and chemicals and things like this in the overall plant. After several weeks of this, we then split them up into those that were going to be in the process plant and those that were going to go into the grinding. Then they got some further training, and we had these modules for grinding operator or leach operator and that sort of thing.

The pay that you got depended on how many jobs you were qualified to do. So you didn't get paid to be a grinding operator; you got paid as an operator 1, 2, 3, and I forget what the final one--I guess lead operator or something like that--and that's one who knew all the units in every job on the plant, so you can exchange jobs and backup each other. It's amazing how much smoother the plant runs when you know that guy's job over there, and what you do over here affects him or her. Several women, as well, in this group.

Indeed, the top level was the oxygen plant, and two of the four were women that ended up in the oxygen plant. They were bright kids, really--almost all of them were young folks. And a lot of them are still there.

Swent: Mostly local people?

Thompson: Mostly local people, that's right. We were able to get some out of the Geysers. Some came from construction. A lot were farmers. One of the gals that I remember was just a waitress.

Every time I see her, she's just gushing about what a wonderful thing this mine was for her.

Swent: Of course.

Thompson: So, you know, those kinds of things are very rewarding, when you look back on a project and get that kind of feedback, it's kind of neat.

Hiring Ron Parker and John Turney

Swent: So did you hire Ron, then?

Thompson: Ron Parker?

Swent: Yes.

Thompson: Yes. He was working at Buick [Missouri]. He was smelter superintendent or something. Bill Humphrey had suggested that I look at Ron as a potential candidate to take over my job down the road. We wanted to have choices. Right about that time is when Joe Young left us. Joe had been working at Creede, and I had borrowed him for the project. And he was there during the early days of the production start-up. He's a process guy.

We brought Ron, I think, in maintenance initially, and then eventually into operations. When I left, he stayed and ran the plant, so yes, it was worth the trip over to go interview him at Buick. [laughs] I had some personal friends that lived there, too, so that worked out pretty nice. That was a nice trip. But he's obviously been the right guy; they've done a wonderful job there, and now they're starting to use him elsewhere around the company doing other assignments. He's over at Lead right now, on a special assignment there.

John Turney, I borrowed him from the engineering group, as well, about the same time, I think. He had done a lot of work, we knew him real well, and talked him into getting into the operation side of things. Now he's up at Eskay as general manager for the Eskay project.

Swent: But you're not doing autoclaving up there?

Thompson: No, we decided not to. That's right, which goes to show that just because we invented it, doesn't mean that that's the only way to do things. There's more than one way to do all these

projects. It's a question of which is the right way to do something.

I look back on that period of time as a very fun period that was very rewarding. Even if I went on a short trip, like a couple of days, and I'd come back and I'd say, "Wow, look!" There would be physical progress. The building would now have sides on it or something, or a foundation would now have a piece of equipment on it--literally before your eyes. If things got kind of rough around the office or too busy or something, I'd just go out for a walk around the plant and see how things are going.

The construction industry, if I had to start my life over again, that's one I'd really give serious consideration to, because it's so rewarding. I know it's very insecure and everything, it's got its downside, but boy, when you see something like the McLaughlin project and you say, "I had something to do with this," it's very rewarding. It really is. It's kind of fun.

Unforeseen Problems with Crushing

Swent: And it has worked pretty well?

Thompson: Yes. Considering that we didn't pilot it, we should be very proud of what we did there. And frankly, some of the places we had the trouble were not in the autoclave area. It's like the crushing areas where really we had the most problems. The ore was very sticky and clay-ey and wet, and the plant that we had set up didn't work very well on that. In the end, we replaced our crusher with a different type of crushing unit. When we did the expansion to the second line for the oxide ores, that's when we took the opportunity and got rid of the old crusher and put in a new gyratory crusher. So of the whole plant, that's probably where we made the biggest mistake. I wish we had done it differently, I guess.

Swent: That's not anything modern and new.

Thompson: No, it isn't. You wonder, how can people build a crushing plant with problems when there are crushers all around the world? But it goes to show that nature is so different, and every ore body is different, and every piece of rock is different. This just turned out to be more of a problem than we thought it was.

It's not as much of a problem today, because we've mined through most of this soft, oxidized material, but for those first few years, it was hell trying to get that stuff to go through the plant. It was only supposed to run one shift a day, and we were running it all three shifts and barely making it. One time we brought in a spare crusher, just tried to keep up. In the end, we just got rid of it and got a new different type of crusher, much bigger.

Swent: Who goofed on that?

Thompson: Well, I guess we all did. I signed those drawings just like everybody else did. We were all paying attention to the autoclave area. The best people were on the autoclave area-- that's the way really to put it. Really, we just sort of assumed Davy-McKee, a major engineering company, they know what they're doing. They must have had their junior engineers on it and not the more experienced people, I guess is the way to look at it.

And we're in the mining business, too, and we do a lot of crushing and grinding. We should have seen that that would have been a problem, and we didn't.

And technology also improved. By the time we bought this new crusher, it was all elevated on a semi-portable system that's much cheaper to build than what we built. So things improve with time, also, and give you more options and more choices. Yes, they didn't have those kinds of units when we first started, so we would have had to get something else. But that's one area I wish we had done a better job on.

Swent: The crushing.

Thompson: Yes. But the environmental protection has worked. The reclamation now we're winning all sorts of awards for. And Ray will be able to tell you a lot about that.

The concept there was we knew that we would never be able to get around the fact that we're digging a big hole in the ground, so what we were trying to do? We had all these acres around there, thousands of acres, and we said, "Look, we're going to improve the overall land quality by range management, fire management, planting more rare plants, and all these kinds of things, creating wildlife refuges, to offset the deduct that we're going to create in the middle," which is relatively small considering the size of the overall piece of property. And that went across fairly well.

Swent: You can't get around a hole in the ground.

Thompson: Yes. A hole in the ground is a hole in the ground, but if you look at the total picture of the whole area, we're going to improve it. We'll leave it better than it was before. And we've cleaned up all those mercury mines and everything else that were there before. There were some problems there, historical problems, from surface contamination and contamination of the waters, and we've fixed that. Now, take a look at some of the pictures of what that place looked like before we started. [laughter] It was a junk yard, to some extent.

Swent: The Manhattan Mine wasn't really a beautiful place.

Thompson: No. The whole area had been disturbed, and of course, that also helped us in our permitting.

Swent: Sure. It was a real eyesore, wasn't it?

Thompson: Sure, sure.

Relations with Labor Unions

Swent: It has not been unionized?

Thompson: No.

Swent: There's been no push for it?

Thompson: The only push was during construction and, interestingly enough, they couldn't generate much local support because of our emphasis on local hiring and that we had delivered the jobs when the Geysers hadn't. So they imported bus loads of picketers, and they picketed our mine, and most of the workers crossed the picket line. Only a small handful didn't. There was a lot of communication back and forth, and when these guys from out of town found out a few of the facts of what was going on, they lost a lot of their picketers, who left right away. Then there was just a small core group of picketers that was probably less than ten or twelve. It lasted a week or so, and then they were gone. Very ineffective effort.

Swent: Do you recall when this was? I don't have a date on that.

Thompson: Oh, I don't either, but it would have been--let's see, we already had the parking lot, because they were doing it at the parking lot. I would say in 1984, sometime in '84.

Swent: The parking lot down in Lower Lake?

Thompson: That's right. That's where they did the picketing. They did testify against the project during the permitting, which was a bit of a surprise. People asked, "How can you as pro labor representatives really testify against jobs for your own people?" Well, they had this ulterior motive, and basically they approached us a couple of times asking whether we'd be willing to sign an agreement to make it a union project, and then they'd guarantee labor peace. We said that it was not up to us to make that decision, it was up to the workers themselves to make the decision whether they wanted to be represented or not, and that we had concerns about local hiring.

Swent: How did they approach you? Someone actually came to your office to see you?

Thompson: Came to the office, yes.

Swent: A union organizer or officer?

Thompson: Yes. There were two of them that came together and wanted to talk to us about the project. I didn't know who they were, frankly, when they first came, but that's what it was. They made a second approach to the Davy-McKee people.

Swent: Which union was it?

Thompson: The people that came were from the Building Trades Council, which represents all the various construction unions. Then the Operating Engineers did some lobbying against the project. I got a phone call once from the local Plumbers Union, because the Konocti Harbor Inn is owned by the Plumbers Union. He wanted to make sure--this is Joe Mazzola, who I think has since died--he was quite a character, apparently, and the head of the Plumbers Union. He asked if I would see these guys. I said, "Sure, I'll talk to anybody," so he was the one who organized it.

But basically we had thought that something like this might happen, so I had the words already sort of casted in my mind as to what I was going to say.

Swent: But no mining or mill workers unions?

Thompson: Well, the Operating Engineers do represent other mines. They were there really more with the construction end of things. To my knowledge, and you might want to ask Ron, I don't think there's been any activity since.

Swent: Interesting.

Thompson: And I've worked with both union and nonunion mines, and you can do it either way, but it's not up to the company to decide, it's up to the workers. That was an easy one to handle. So that's not been a big issue throughout, other than that one short period of a week or so, and then it was gone.

An Above-Average Safety Record

Swent: And you've had no safety problems really?

Thompson: No. We went the first year without a lost-time accident, which was quite helpful. During construction, we did have some accidents. I just picked up from the report here, but our accident frequency was about half the national average, and the severity was about half the national average, so it was a safer than normal construction project.

And then the operations went a whole year before we had a lost-time accident, which was quite an achievement. I attribute it primarily to the training--all that extra heavy-duty training that we did. So that's again very rewarding in itself. We have had accidents, and there's been one fatality out there since, in a crane accident, which was very difficult for us to deal with. But generally, it's been a very safe mine. Well, modern mines generally are safe.

Swent: Well, open-pit mines too.

Thompson: Open-pit mines in particular, but even modern underground mines. We had one lost-time accident at Williams last year. There's 630 people working there in an underground mine, but it's highly mechanized and [has] good equipment, good procedures. You can do it.

Swent: I didn't realize you had a fatality.

Thompson: Yes. It was a supervisor, actually. The ball on the crane fell and got him. So those are tough. It's one of the parts of the job that you wish never comes.

Swent: Absolutely.

Thompson: It was a freak accident.

Swent: They always are.

Thompson: Yes.

Anyhow, but that was quite a few years after the construction. It was well into the operation.

Beginning the Reclamation

Swent: And now they're seeing the end point of the operation?

Thompson: Yes, that's right, and a lot of reclamation work going on. Although there may be some exploration potential: they were going underground in a new zone that may turn out to be economic. I don't think that it will be the type of thing that's going to extend the life for many, many, many years--you never know--but if so, probably a different kind of mine, because you're looking at underground, and it would probably be smaller tonnage.

Swent: But that was written into the plan from the beginning, the possibility that--

Thompson: Yes, that we might go underground. That was conscious, because we knew that that could happen. Now we're getting there, and we just recently got the permits from Napa County to go underground and explore this area. If it works out, I think the way it will work out is it will be supplemental to some of the low-grade stockpiles that we have on the surface, so the combination of the two will make it economic to treat those low-grade piles that are sitting there.

So there is still some hope. You never know. But yes, they did a lot of work on reclamation on the dumps. And as you know, we've been reclaiming them as we build them, so there's less to do than would normally be at a mine. But it was the right thing to do. As time went on, we learned how to reclaim them more and more, and how to build them in the first place to make it cheaper to reclaim.

Applying in Canada Lessons Learned at McLaughlin

Thompson: We applied some of the lessons there to the Nickel Plate Mine up at Canada. When I went up there, this is one of the mines we acquired from the Corona acquisition. They had these waste dumps that were just incredibly high, hundreds of feet high. I said, "How are you going to reclaim those?"

They hemmed and hawed and figured, "Well, we'll worry about that when the mine's finished."

I said, "Well, think of how you might build them today to reduce your overall reclamation."

We had quite a duel over this. I said, "Your job's not over when the mining is done, it's over when this mine is reclaimed and returned back to the crown." They came up with a different way to build the dumps, and now they're very proud of the fact that they're reclaiming the dumps as they mine, and it's won us all kinds of goodwill with the neighbors and with the reclamation authorities in British Columbia.

Swent: Canada is now as strong on--

Thompson: Oh, absolutely, yes. So there it's a very concrete example of the lesson learned and applied elsewhere.

Swent: And cheaper to do it from the beginning.

Thompson: From the beginning, do it right. We're having to then come back and reslope the things and all that. What they've done with those high dumps is brought wraparound dumps to bring the overall angle down, and make it much easier to do it, and moving the topsoil up to the top so they can spread it. That way they have one less rehandle. So those kinds of little tricks that you can do make the job easier to do in the long run.

Swent: Well, I think we've asked almost all the questions--

Thompson: That were on the list, yes.

Some Key Players

- Swent: There is a list of names I wanted to ask you about. Let's begin with Bob Sinclair and Murray Hutchison. Who were they?
- Thompson: They were construction "stiffs" on the job. Bob Sinclair was a South African that was quite a colorful character on site, and he had a tough time accepting the environmental constraints at the project.
- Swent: Was he working for you?
- Thompson: For Davy-McKee. He'd tear his hair out at some of these inspectors and how they had to wait for this and that permit.

##

- Thompson: We really brought him along, and in the end, he was very proud how he could do all these things, and do them in California.

Murray Hutchinson was also with Davy-McKee, and he was on the business side. Now, Murray, I think, is heading their office in San Ramon, but at the time, he was doing the contract work and cost negotiations and that sort of thing. But he moved up to the site for the construction period.

- Swent: They actually moved their people up there?
- Thompson: Yes. The other names here, you know Twyla Thompson and Harold Moskowitz?
- Swent: Yes. Twyla was the supervisor from Yolo County, and Harold is from Napa.
- Thompson: Howard Day was the other of the politicians involved. He was a supervisor from Lake County. He had an electrical company, who ended up doing work out there simply because they were local and they again fell into that preference that we had to use locals. But he was an older fellow, and actually, he's had a heart attack, and I think he's retired now. But I played basketball with his son quite a bit.
- Swent: Thompson, Day, and Moskowitz were the three supervisors on EDAC?
- Thompson: That's right. And Jim Hickey and Ben Hulse were the people, the planning directors, for Napa and Yolo Counties. Jim Hickey was quite the professional. Ben Hulse was a younger fellow

with less experience. They were the key players in the permitting there.

In Lake County, we had a succession of planning directors. No one person really stands out, in my mind, anyway.

That's about it. We talked about the construction. With the open house in September, we did have 8,000 visitors when we opened the project--at the big opening. This is just a list of all the dates, which I could just let you have.

Swent: I'd love to have that, yes.

Thompson: I think most of this we've talked about. Some of it has some of the costs that we paid for some of the things. But I think we've pretty much talked about everything.

Sonoma State College Students Help with Archeology

Thompson: Sonoma State. We had some archaeological sites from the aboriginals of the First Nations, as they're called now. We found a small village over in Yolo County, and it was right on the shore of our proposed reservoir. Ray Krauss used his connections over at Sonoma State and got the professor to orchestrate it so that his summer classes were at this location, and they excavated it all for us, and for nothing really. We gave them a trailer, an old used trailer, and put a power line down there, and brought them water from time to time, but they'd be there every summer working on archaeology.

I think they may even still do that to this date. It's using your connections, and instead of becoming a problem, it was a resource for the local community. Sonoma State is not that far away, and they have an archaeology program, and here was a site where they can actually accomplish something and do something good. That worked out pretty good for us.

I think the rest of it we've talked about fairly extensively. The parking.

Swent: We haven't mentioned bats, but I'll let Ray tell us about the bats.

Thompson: That's true. That's more in the operation side. But yes, he's good at that. He can tell a heck of a story on that. Well, that's about it, I think.

Swent: We'll have to leave something for Ray to tell.

Thompson: Sure. Certainly if you'd like to ask questions again, follow-up questions or something, I'd be glad to do that.

Swent: I'm sure I'll think of things later. The main thing is that it pretty much worked as you said it would.

Thompson: Yes. Very satisfying. Really is. It's kind of neat. I just wish we'd had the \$450 gold that we thought.

Swent: Oh, wouldn't that have been nice! [laughter]

Thompson: But not to be.

Swent: That's what we all need. Thanks very much, Jack.

Thompson: My pleasure.

Regional Oral History Office
The Bancroft Library

University of California
Berkeley, California

Western Mining in the Twentieth Century Series
Knoxville/McLaughlin Project

Twyla Thompson

COUNTY SUPERVISOR, YOLO COUNTY, 1975-1985

An Interview Conducted by
Eleanor Swent
in 1994

Since 1954 the Regional Oral History Office has been interviewing leading participants in or well-placed witnesses to major events in the development of Northern California, the West, and the Nation. Oral history is a method of collecting historical information through tape-recorded interviews between a narrator with firsthand knowledge of historically significant events and a well-informed interviewer, with the goal of preserving substantive additions to the historical record. The tape recording is transcribed, lightly edited for continuity and clarity, and reviewed by the interviewee. The corrected manuscript is indexed, bound with photographs and illustrative materials, and placed in The Bancroft Library at the University of California, Berkeley, and in other research collections for scholarly use. Because it is primary material, oral history is not intended to present the final, verified, or complete narrative of events. It is a spoken account, offered by the interviewee in response to questioning, and as such it is reflective, partisan, deeply involved, and irreplaceable.

All uses of this manuscript are covered by a legal agreement between The Regents of the University of California and Twyla J. Thompson dated May 17, 1994. The manuscript is thereby made available for research purposes. All literary rights in the manuscript, including the right to publish, are reserved to The Bancroft Library of the University of California, Berkeley. No part of the manuscript may be quoted for publication without the written permission of the Director of The Bancroft Library of the University of California, Berkeley.

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It is recommended that this oral history be cited as follows:

Twyla Thompson, "County Supervisor, Yolo County, 1975-1985," an oral history conducted in 1994 by Eleanor Swent in *The Knoxville Mining District, The McLaughlin Gold Mine, Northern California, Volume VII*, Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 2000.

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INTERVIEW HISTORY--Twyla Thompson

Twyla Thompson was a supervisor for Yolo County during the time that Homestake Mining Company was securing permits to develop the McLaughlin Mine; therefore, she was one of the first interviewees invited to participate in the Knoxville District/McLaughlin Mine oral history project. As a Yolo County native and a farm owner, she was well acquainted with the Williamson Act [California Land Conservation Act of 1965] and its restrictions on land use, and she had actively worked on the development of the Yolo County land use plan. She was also well acquainted with the controversial issues surrounding Cache Creek gravel mining, so she was well equipped to represent her constituents in negotiations with Homestake.

She was helpful in arranging the interview time and place, and also supplied me with a detailed list of other people who would be good interviewees. We met on May 17, 1994, in Woodland at the Farm Bureau office, where she is obviously very much at home. The location was a reminder that agriculture is the historic source of Yolo County's wealth, and the primary reason for the existence of the nearby University of California at Davis.

Twyla Thompson was well dressed in classic tailored slacks and sweater, and carried neatly labeled file folders with information to which she referred. I felt she was a no-nonsense woman who easily commands respect and admiration. She came to politics at the request of her constituents, after success as an active and dedicated community volunteer worker. In her interview, she outlined the permitting process and what she saw as the salient issues for the residents of her district:

...they were concerned over air quality for a while, and...they set up some early monitoring things for that. They were concerned over, actually, what would happen to the land...they were just fearful when the word "mine" was used.

Homestake wanted to build a dam on Davis Creek, which flows into Cache Creek.

One of the big issues that was a concern had to do with changing the ordinance to allow private reservoirs and retention basins and water transmission facilities to engage in mining activities, because heretofore they were just for farm ponds or cattle.

Twyla Thompson was named to the EDAC [Environmental Data Advisory Committee], comprised of representatives of all three counties concerned with the mine development: Lake, Napa, and Yolo. She says, "It was a tough, tough time for a while," and she compliments Harold Moskowitz of

Napa County for his "utmost patience." She says of her decision to approve the permits:

I've always made decisions based on facts...my role was to find out exactly what was going to occur, how it was going to occur, and what some of the safeguards would be in the project today, as opposed to the lack of safeguards in old mining operations in the past throughout the United States. And I felt satisfied that this company really wanted to do it right.

The tapes of the Twyla Thompson interview were transcribed in the Regional Oral History Office and the lightly edited transcript was sent to her for review. She reviewed it thoroughly and returned it in March 1995 with very few changes for clarification of details. The manuscript was corrected and indexed at our office. The tapes are deposited in The Bancroft Library and are available for study.

The Twyla Thompson interview is one of more than forty interviews which were conducted by the Regional Oral History Office from 1993-1999 in order to document the development of the McLaughlin gold mine in the Knoxville District of Lake, Napa, and Yolo Counties, California, from 1978-1999, as part of the ongoing oral history series devoted to Western Mining in the Twentieth Century. The Regional Oral History Office was established in 1954 to record the lives of persons who have contributed significantly to the history of California and the West. The office is a division of The Bancroft Library and is under the direction of Willa K. Baum.

Eleanor Swent
Project Director, Research Interviewer/Editor

November 1999
Regional Oral History Office
The Bancroft Library
University of California, Berkeley

Regional Oral History Office
Room 486 The Bancroft Library

University of California
Berkeley, California 94720

BIOGRAPHICAL INFORMATION

(Please write clearly. Use black ink.)

Your full name Twyla Jane Thompson

Date of birth Oct. 8, 1930 Birthplace Woodland, Calif.

Father's full name Herman Hugh Richter

Occupation Farmer Birthplace Yolo, Calif.

Mother's full name Laura Maura (Ruffin) Richter

Occupation Homemaker Birthplace Toone, Tennessee

Your spouse Robert Ronald Thompson

Occupation ^{Salos Manager}
~~SPRINKLER-CONTRACTOR~~, Retired Birthplace Los Angeles, Calif.

Your children Ronald Hugh Thompson

Nora Glenn Thompson

Where did you grow up? on my ranch near Yolo, Calif.

Present community The same as above

Education Holy Rosary Academy, Woodland, Ca.; Woodland High School
The University of Calif., Davis, Ca

Occupation(s) Homemaker; Mother; Community Volunteer; Yolo County
Supervisor, Fifth District; one-giver.

Areas of expertise Community Based organizations; Water;
politics; Volunteering; Ranch Agriculture problems.

Other interests or activities Family gatherings, pets, people,
travel;

Organizations in which you are active Sacramento Valley Waterside Canal Assn.
President; Yolo-Zamora Water District, President; Woodland Chapter
of Commerce, Co-Chair H2O Task Force; Elderly Nutrition, Meals on Wheels
Director; Yolo Community Center Assn, Vice-Chairman → continued
on back

INTERVIEW WITH TWYLA THOMPSON

YOLO COUNTY SUPERVISOR, 1975 TO 1985

[Date of Interview: May 17, 1994] ##¹Deep Roots in Yolo County

Swent: We're interviewing at the Farm Bureau office in Woodland, California, on May 17, 1994.

All right, Twyla. Let's begin with your telling us a little bit of your background: where and when you were born and so on.

Thompson: I was born in Woodland, California in 1930 and live on a ranch that's been in my family for well over a hundred years. Went to local schools.

Swent: What was your maiden name?

Thompson: Richter. I was Twyla Richter, and my father was Herman Richter. My grandfather was Andreas Richter, pioneer settler in this area. I went to local schools, and through my elementary school went to Holy Rosary Academy, Woodland High School, and then on down to the University of California at Davis, where I met my husband, Robert Thompson. We were married in February of 1954 and have two lovely sons and daughter-in-laws.

Swent: You went to school, then, always in California?

Thompson: Always in California. Always in Yolo County.

Swent: Your roots are pretty deep and strong in Yolo County.

¹## This symbol indicates that a tape or tape segment has begun or ended. A guide to the tapes follows the transcript.

Thompson: Yes, they are. Very definitely. That's right.

Swent: And your family still is in ranching. Your husband--

Thompson: Oh, we're retired now and lease the ranch out. My husband was sales manager for Spreckles Amstar. He retired about a year or two before I retired from the Board of Supervisors. I retired from the Board of Supervisors in January of 1985.

Swent: Are your sons involved in ranching?

Thompson: No. I have one who is an aircraft mechanic, and the other is a diesel mechanic manager of an operation in West Sacramento.

Swent: So they've broken that long tradition, haven't they?

Thompson: That's right.

Non-Political Community Service

Swent: You were a ranch wife doing Farm Bureau work.

Thompson: Community work of all kinds. Health work. Started out in the public school system when our sons went to school by working with well-baby clinics in the community. Worked in the War on Poverty programs in getting several of them established here. Head Start, Self-Help housing, et cetera. Served as a member of a grand jury and served on several advisory committees for the county as well as the region. Then in 1975, a vacancy occurred on the Board of Supervisors from the 5th District, when Mr. Dudley Stephens was unable to continue out his term because of ill health, so people encouraged me to apply for the vacancy. I applied, was interviewed by then Governor [Jerry] Brown, and was appointed and began my tenure on the Board of Supervisors. I was elected twice to the board and appointed by the governor the first time.

Swent: Had you known the governor before?

Thompson: No, never got involved in partisan politics except I had a very small reception at my home once for Congressman Bob Leggett, and had a little gathering--a little coffee--for Ed Zieberg, Assemblyman Zieberg at that time. But I was really involved in the community; worked in the community with community-based organizations and activities, so I was not really involved in

the political field. So the first time I had to run for office, I had to find out how one runs for an elected office.

Swent: Had any of your family, your father or your husband, been involved in politics?

Thompson: No. Oh, no, not at all. My mother came from Toon, Tennessee, and I have some distant relatives way back during the days of the Civil War who served in various political capacities for their legislatures then, but that's been many, many years ago.

Swent: Pretty far removed, isn't it?

Thompson: Way back. That's right.

Swent: But I'm sure you had a lot of local connections through your community work that helped in getting elected.

Thompson: Oh, yes. A lot of encouragement there, and something I had never really even thought of. Never thought I would ever wind up as a politician. But it seemed to be a natural progression at the time, and the retiring supervisor was very encouraging, as well as a lot of my friends. Of course, I discussed this with my family, and had my family not given me the support that they did--and our sons then were grown up, in the latter part of high school, getting ready to go into college--I probably would never have done it.

Swent: You were appointed in '75.

Thompson: Yes, August of '75.

Swent: Then when did you first run?

Thompson: I had to run the very next year, in June of '76.

Swent: And you were re-elected.

Thompson: I was elected then. And then the next four years, when I ran again.

Swent: So it was a four-year term.

Thompson: Right.

Working Out a Compromise on Closing a Landfill Site

Swent: What were some of the issues pre-McLaughlin? We're going to talk soon about the McLaughlin Mine, when it came in, but before then what were some of the issues in the county?

Thompson: The first issue that encountered me after taking the oath of office was the closing of a landfill site up the Capay Valley. It was a site that was used by most of the residents of the valley, an area. They were going to close it because of the new laws that came through regarding locations of landfills and not allowing any county dumps any more along streams or tributaries or anything else. So that was quite a traumatic situation to walk into.

A group of people who came in the chamber carrying grocery bags full of signatures, protesting the closing of the county facility there, so what we did is work out a compromise and set up a transfer point, transfer station, in the Esparto area that could be used by the valley people, the Esparto people, the western side basically, because they would have to have driven over--it would have been--I think they figured out it would probably have been seventy miles or more, sixty to seventy miles, to the landfill, which is over just north of Davis. That's quite a way. So anyway, we got that worked out. So that was kind of my initiation into everything.

Yolo County District Re-apportionment

Thompson: My district was always the rural district with representation in a part of Woodland and all of Winters, and I had all of the university [University of California, Davis] campus and student housing in my district, also, so it was an interesting group of diverse interests, from farming people to conservative people related to agriculture, and then transferring down to the university--more of a liberal scene, because those were the days when there was more of a liberal grouping of students at UCD. So it was very challenging to represent all those people.

Swent: About how many people were there?

Thompson: Well, let's see. The population is always divided up evenly. At that time, I think the county was probably around 110,000, something like that, I guess, population. And then when it's reapportioned every four years by the census, using the census

as the method of calculating how to divide the constituencies and so forth, you get an equal sharing of a portion of that--exact numbers: whatever five into 100,000 would be, I guess.

Swent: So over 20,000. So there are five supervisors.

Thompson: Yes. There are five supervisors and five districts. And it is very difficult to get, because of the one-person-one-vote edict that prevails now in the state and nation as law. You have to pick up population, but sometimes the population centers are not centered so that it's conducive for a logical division among supervisorial districts. And Davis, of course, at one time was growing faster than any other community in Yolo County. So we tried to keep things together of common interests and tried to see that there was some rural area in everybody's district so that they would get kind of an understanding of some of the problems in the rural area. But it's not always easy to divide the districts up and come out with an equal number of population.

Swent: So that's one of the tasks that the supervisors do.

Thompson: Well, the supervisors usually appoint a committee to review this and come up with recommendations on how to reapportion. There's always some criticism that's made, but it's not nearly as bad as it is at the state and federal levels for reapportioning, and as some people say, gerrymandering, which is a no-no today--reapportioning one's district into strange configurations. But we always tried to retain a balance as much as possible and commonality of community, rather than to mix too many completely diverse interests together, which does not go for a very good mix. It's not easy, though, when you've got population centers sort of down at the southern end of the county. Woodland is sort of in the middle. West Sacramento, which was unincorporated at the time that I became a supervisor, was called East Yolo then. Davis, of course. And then Winters was over to the west, Winters being the smallest incorporated city of only 3,000. Then it was only about 3,000; now it's 4,000.

Swent: The county supervisorial districts, are they the same as any other districts? Do they serve also as state districts?

Thompson: Oh, no, no. That's all different. Your congressional districts are different from your state senate and assembly districts, and your cities, of course, are governed by a city council within the incorporated sphere of that city, of the city limits. But supervisorial districts merely relate to one county.

Swent: Right. But they didn't coincide with any other?

Thompson: Oh, no.

Swent: Air, water, or other kind of districts?

Thompson: No.

Swent: Okay. A completely independent arrangement.

Thompson: Yes. And the 5th District touched upon Colusa County to the north, Lake and Napa County to the west, and Solano County to the south, so that's why I was involved in this McLaughlin project.

Regional Committees for Mutual Interests

Swent: That's another thing I wanted to ask you. Had you done any cooperating with these other counties?

Thompson: Oh, yes. We served on various committees together. We belonged to CSAC [California Supervisors Association], which is the state association of supervisors. Their offices of that organization are in Sacramento, and that's a statewide association, where you have meetings and representations and committees that you can elect to serve on. Then there are local, regional groups of which--Yolo County was a member of what they called the "Mother Lode" group, which consisted of well, let's see, I think it was Solano and Sacramento County, Yuba, Sutter Counties; Placer, El Dorado; and then we rotate and meet around in our areas. And likewise, Napa County and Lake County have their own regional entity, too. So they all vary.

Then you meet together, mutual interests. For example, Yolo County and Solano County Board of Supervisors formed a joint air pollution control district, of which the supervisors from Solano County and supervisors from Yolo County sat as the governing board, and we met once a month. And I believe that still exists. They're talking about reconfiguring the representation to include representation from the cities in those two county areas, rather than just have the county supervisors.

Then there are common interests such as road work. You might be working on roads that would run from one county to the

next--different projects such as that. I was involved with Lake County because of the old county Flood Control Water Conservation District, which operates Clear Lake and Indian Valley reservoirs as well on water matters, basically.

Swent: This was a constituted--

Thompson: The Yolo County flood control district?

Swent: Yes.

Thompson: Yes. They're a water district that has purview over the water in Clear Lake and then, of course, the Indian Valley dam for serving irrigation water to farmers in the district's area of operation in Yolo County.

Swent: And this was already set up.

Thompson: Oh, yes. In fact, Clear Lake goes clear back to the 1900s. Indian Valley was built in the 1970s and I think completed around '75.

Swent: I was trying to get some feel for the level of organization that existed at that time for air and water. So there was already a consciousness.

Thompson: Oh, definitely, yes. Now, Napa and Lake would have had their own air pollution districts of some sort. I have no idea how those worked.

Swent: There was a Bay Area District.

Thompson: Oh, yes. That's called BCDC, I think. See, Solano County was divided into two air pollution districts. It was Solano-Yolo for that portion of it that was in; and then, as it got down to the Bay Area, it was in what they called the Bay Area control district.

Swent: Air quality management district, I think it was called.

Thompson: That's right.

Swent: So that was air and water.

Thompson: Then, of course, Solano Irrigation District, SID, was the one that operates [Lake] Berryessa, and they had, of course, some concerns over the development of this particular project.

Swent: That didn't overlap into--that was just Solano.

Thompson: That would have been Solano County, yes.

Swent: Did you have an irrigation district here?

Thompson: Yes. That was the Yolo County Flood Control Water Conservation District who, of course, monitored this and with the development of their little retention pond for water purposes that Homestake did. That was basically some of the concerns that local residents of the Capay Valley had. They were concerned that something would be released.

Swent: We'll get into that in a little bit. I wanted to kind of set up the background first. There were already the two water-- Clear Lake and the Indian Valley.

Thompson: Right.

Swent: But there wasn't any reservoir in this area at that time.

Thompson: No, not in that particular area that the reservoir was built.

Swent: That was Davis Creek, Cache Creek. And the landfill had concerned them with the watershed, too.

Thompson: Yes.

Previous History of Large-Scale Wildlife Poaching

Swent: You had mentioned in our conversation the other day about the wildlife protection, that a lot of people had been doing unauthorized hunting.

Thompson: Well, that came to light, I think, when the--

Swent: I shouldn't say a lot, but there had been.

Thompson: It goes on, but I think because it was in such a remote area, the people did not realize how much was going on. Because that area that was over the hill, so to speak, from the Capay Valley and immediately adjacent to the Homestake project where they noted during the construction phase a lot of poaching going on --of people going up and actually putting the animals that they killed, driving pickups and using headlights and spotlights, and putting them in 55-gallon drums to take them back down to the city.

Swent: This was deer?

Thompson: Basically deer, yes. And no one knew that because it's kind of a very remote area that people don't get into, so nobody really would know what was going on there. So if it had not been for the project, I daresay that they probably would have wiped out a very large portion of the deer herds in that particular area.

Swent: This really was a very isolated area.

Thompson: Very much so, very much so.

Swent: There were virtually no roads from here in there, were there?

Thompson: No. You could get to the project through a back road over what we call Low Water Bridge, and I think it was a county road. I think it was County Road 42. I always remember the Low Water Bridge, and I have to refresh myself on the numbers up there. But there was a back way that you could get from up above Rumsey over to Lower Lake, a road that threads itself around-- it's really a four-wheel-drive road. You can make it in a conventional vehicle, but it would be kind of rough on it. And there is a road that would go off from there that you could eventually go back to the Homestake project. But those roads are not well-traveled roads, and only people with four-wheel drives would undertake.

Swent: And there are no communities up there, really. Or there were not at that time.

Thompson: No communities whatsoever, no. Lower Lake on the far side, Rumsey on the near side, but still quite a ways.

Swent: Had there been any mining locally in Yolo County?

Thompson: Perhaps many, many years back, in certain isolated areas. I am not that familiar with it. There is a history that has been done of the Capay Valley, and I should probably consult that. I will let you know what may have gone on.

Swent: But in contemporary, recent times.

Thompson: Not in recent times, other than the kinds of things that were going on in the other counties. More around Clear Lake.

Swent: Hadn't there been aggregate mines?

Thompson: Gravel mining did not exist in the Capay Valley to any degree at all, but mostly would have been from Cache Creek and Esparto area on down to perhaps near Yolo.

Swent: That's recently.

Thompson: Oh, yes. That's ongoing right now, and has been going on for a number of years. But nothing in the Capay Valley, itself.

Cache Creek Aggregate Sets the State Standard

Swent: You mentioned to me that the aggregate was used as a standard?

Thompson: The aggregate that comes from Cache Creek the State of California uses as a standard of measurement, or quality, of what gravel should be in its use in certain projects that require this high degree of quality.

Swent: Is it called Cache Creek aggregate?

Thompson: Oh, yes. Cache Creek aggregate. Yes, definitely.

Swent: That's the standard.

Thompson: They use that to measure the standard, to set it up.

Controversial Off-Channel Gravel Mining

Swent: But are they still getting it from Cache Creek?

Thompson: Oh, yes. The controversy is most of the gravel has been mined from the channel itself, except for what would come down in some sort of flood flowing or winter flows. Of course, we've been in a drought sequence now for seven years, and it looks like we're going to have another sequence here--hopefully not--so the availability of gravel in the channel is just not there. The Board of Supervisors now is attempting to put together a resource management plan and also looking at going off-channel to mine the aggregate, which would be adjacent to the channel but off-channel. That's, of course, this great controversy right now.

Swent: I thought this is worth mentioning because in so many communities there is this ongoing struggle between quarries and builders who have to have the quarry material and neighbors who say, "Not in my backyard." Nobody wants a quarry next door.

Thompson: They wonder if these off-channel pits, as they're called--there have been some experiments by some of the companies to restore them. They take the topsoil off, and then they put it back again, and they have demonstrated that there are certain crops that can be farmed there to a degree of success. But you still have the hole there. I mean, you're not going to fill it back up. But they maintain that it is farmable.

Some areas use them as recharge ponds to store water and then recharge the underground. Of course, a vast portion of Yolo County, with the exception of West Sacramento, is totally dependent upon ground water; and in looking at a diminishing resource, especially during droughts, it is of interest to a portion of the population, and I think a large portion of the population, to use these mining pits as recharge ponds. That's what this study that the Board of Supervisors is going to have to commission--EIR--is, that will these pits be beneficial or are they going to be sealed up some way that would prohibit water from flowing naturally to the underground. So all of these questions have to be answered.

Swent: That's what's ongoing now.

Thompson: That's ongoing right now.

Cache Creek Resource Management Plan Delayed

Swent: But it was also an issue in '75?

Thompson: In '75, when I became a supervisor, they were just beginning to do a study of Cache Creek in an attempt to establish a management plan for the creek.

Swent: This was the county?

Thompson: This was the county. Commissioned a study to be done by Woodward-Clyde & Associates. It was under the auspices of the expanded committee from the planning commission at that time. They did a study, and the study resulted in the culmination of saying certain things, such as the mining should not continue

in the creek to mine below the thalweg, which was considered to be the thread of the stream, or below certain clay layers.

So there's the theoretical thalweg that mining should not go below because it would be harmful to recharging the underground. And so that's when other things were looked at at the time, including off-channel mining, but then there needed to be a plan developed by which to ascertain if off-channel mining was going to be harmful, or to what degree, where, how deep, all of these things.

So I guess it started in probably around '77, '78 that an interim ordinance was developed to issue permits to companies to continue operating while a plan would be developed, including an EIR, to determine how Yolo County would govern the future of gravel: regulation, extraction, the whole thing. But, because of the politics of [chuckles] the situation and changing supervisors--I retired from the Board of Supervisors; a new supervisor came on. That supervisor had to be brought up to current date on this and had different ideas than I had on approaches. So all of this created a loss of time.

Swent: You're talking about '84.

Thompson: Yes, right, '84. So all of this creates--the years go by. Then it was not a priority of the whole board to move forward with developing this resource management plan because about that time the incorporation of West Sacramento became an issue, and that was a very large issue, which took a lot of staff and diverted a lot of our staff resources to that. So by the time we got back to it, I was getting ready to end my sojourn on the board. Another supervisor coming aboard. And sort of a re-education and then a determination of what to do. And what? Now it's 1994, and they still don't have a plan.

Supervisors and Citizens: Two Studies and a Chasm Between

Thompson: But they did form a committee of two members of the Board of Supervisors to research what had been done and to come up with some recommendations, and the recommendations were to look at the creek in two stages. One would be off-channel, and the other would be to devise some sort of streamway plan for the creek as a tool in this area of extraction. Some of the people were very upset now because there was a citizens committee formed of people who had very deep concerns about further mining on the creek or even adjacent to the creek. They came

up with some recommendations which the board reviewed, and then the board formed its own committee and came up with its own recommendations, and I think the division of these two studies is what has created, really, the chasm right now in the county.

Swent: One done by the county and one done by a community group?

Thompson: Well, the recommendations were not all incorporated together, and that was the problem. Because the county has decided that they will look at mining off-channel, whereas before it was alternatives. Well, should it continue in-channel? Should it continue off-channel? Should there be no mining? I mean, it just went on *ad infinitum*. The Board of Supervisors finally took the bull by the horns and said, "If mining is going to occur, it will have to occur off-channel," because obviously the gravel is being exhausted in channel, instream. And so they then would focus the EIR on the off-channel extraction, which some people do not believe should happen at all.

Then they're dividing that plan up into two stages, such as directly the off-channel one, and then there's an in-stream study that needs to be done, too. But the board feels it should be divided into two parts, rather than taken as one total. And I daresay there's some wisdom to that, because I think if they were taken as one total, it probably would be another fifteen or twenty years before anything was decided.

The Homestake Issue Gave Focus to Cache Creek Citizen Groups

Swent: Were there community organizations formed on this issue that had any impact on the McLaughlin issue?

Thompson: Yes, there were the same people in--I don't think there was definitely an organization on the McLaughlin issue *per se* as there were groups of people from the Capay Valley--concerned citizens. But these same people have affiliated themselves with the various groups along Cache Creek, the Friends of Cache Creek.

Swent: Had these people come together over this aggregate issue?

Thompson: I think the aggregate issue became more of an issue with these people after the Homestake thing.

Originally, with the gravel, all the gravel issue, from the time I was on the board until about '84, the people

interested in that were basically the Resource Conservation District. [They] followed that very, very carefully and closely, and [had] concerns with maybe--

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Thompson: It was after, really, the Homestake--the McLaughlin--issue, project, that then the focus seemed to be more on Cache Creek, and that came into reality more. In fact, there were two groups formed that had not been in existence before. One was called the Friends of Cache Creek, which is basically more Rumsey-oriented people at the upper end of the valley, plus some Davis people. And then there's another one called the Cache Creek Coalition, which consists of the parts of the creek in and around, I would say, Capay, probably, to Yolo Flyers Club or just west of Woodland. So you have basically the two groups.

Swent: And those are organized entities, have a name and everything.

Thompson: Oh, yes, yes, yes. Very definitely.

Rumsey Groups: Improvement Club, Water Users, and Grange

Swent: But in '75, if you can recall, when you came on the board, were there--

Thompson: No, the only groups in the valley at that time were the Rumsey Improvement Club, which was an informal group that got together socially, basically in the interest of continuing the little town hall in Rumsey. And then there was a Rumsey Water Users Group, which was a very small group that took water out of Cache Creek and had for years, and it was a very informal group. And then, of course, the Grange group was just kind of starting up there. That's one of the most active granges, I think, around.

Swent: They were just starting then?

Thompson: Somewhat getting started, becoming more active probably in the valley there.

Swent: But granges were a hundred years ago.

Thompson: Yes, but they haven't always been in all parts of Yolo County. The ones in Yolo County that were very active sort of died out,

and I traced this myself. The communities that have active granges are those communities that are more remote and isolated from the urban centers. So there was that group, plus this group that I mentioned, and I think I put the gentleman's name on the list, Shelford Wyatt, with the Capay Valley Water Users Association.

Capay Valley Water Users Association

- Swent: That was, then, different from the Rumsey Water Users?
- Thompson: Oh, yes. Definitely. The Rumsey Water Users actually have an irrigation project that has existed for years and years, and the Capay Valley Water Users is more a group of landowners along the creek there that are looking out and concerned over riparian rights. So those basically were the groups.
- Swent: Capay Valley has become a popular place for city people to go.
- Thompson: Definitely. Yes. That's right.
- Swent: When did this begin? People were moving in--
- Thompson: I would say it started during the seventies.
- Swent: So these were newly-rural people.
- Thompson: Yes. Late sixties, early seventies probably it started more.
- Swent: People were very concerned about the environment.
- Thompson: Oh, yes, and quite a diversity of people: retired people, people that had been in other professions that took up farming, people that had jobs and would commute--airline pilots. Commuting to San Francisco was really nothing at all. A whole diversity of folks--professors, a lot of people that were very interested in the community and in the valley itself.

Developing the Capay Valley General Plan in the Late 1970s

- Thompson: And then we developed the Capay Valley General Plan during the late seventies. That was done basically by forming a community planning group and getting the Board of Supervisors to approve

a staff person to work on it. Capay Valley had no plan of its own. It was really just part of the county general plan. I spent a lot of time in the rural areas when I was a supervisor in my district and heard concerns about what might happen there, and I decided that maybe they needed to have plan. Some people were very critical of this on the outside and said I was opening a Pandora's box and I should just let them be. But I probably was instrumental in getting the people in the Capay Valley organized through developing this general plan, which they did work on, which they came up with, and they were very proud of that. And I worked along with them.

Swent: What did the plan involve?

Thompson: The plan involved taking a look at the whole valley: what exists, what they wanted to see in twenty and thirty years, and how much development or growth they wanted to see up there; looking at the little communities that exist there now from Rumsey, Guinda, Brooks, on down to Capay, to see what they would like to have those and see those in the way of growth; how much agriculture, how much commercial, a variety of things we looked at. And so we did a mini-plan for that valley, and it was put together through a lot of meetings and a lot of input, and they were very proud of that.

Well-informed Planning Groups Retained

Thompson: It was after that that they then retained--because I thought it would be a good idea for a group to be retained, a planning group, and I think they still probably have it in some semblance. Each community that I either upgraded or helped develop a plan in when I was on the Board of Supervisors, I suggested that a community group be retained as an advisory planning group for anything that would come up in the future. So I guess that's how they got started and got very interested in the--and then Homestake came along. [chuckles] And even though it was very far away, they were very concerned over what some of the impacts might be, and became very well-informed on mining in general, because you have a lot of very highly educated people, a lot of retired people with time, so consequently they were really right on the whole thing.

Swent: They were all ready to go.

Thompson: I don't think that there probably would have been the elaborate system set up by the McLaughlin people if it hadn't have been

for those people, because the other counties--Yolo County was the only county that had this particular interest or this particular group. Lake County was exactly the opposite. Lake County could care less. At least, its leaders at that time really couldn't see why anybody should worry about anything. I mean, if somebody wants to come in, do whatever they wanted to do, just let 'em do it. That was about 180 degrees from the folks in the Capay Valley.

Swent: To get this chronology in here, the McLaughlin discovery was in 1978. The agreement was signed in the fall of '78 with the owners, and then the--I'm jumping way ahead, but let me put this in context, the permits for Napa and Lake County were approved in December '83.

Thompson: Yes.

Swent: And the Yolo County permits were not approved until mid-April 1984.

Thompson: That's right.

Swent: They were separate. Napa and Lake came in earlier, and Yolo was--although the county that was least impacted, actually--

Thompson: That's right.

Swent: --was the county that showed the most organized concern.

Thompson: Oh, very definitely. Very, very definitely.

Swent: And are still actively monitoring. Well, they are all still monitoring.

Thompson: I think they are. I don't know what's happened to the technical committee, but basically it started here. Of course, there was an informal meeting between staff people and--

January 1982, Tri-County Committee to Review Homestake's Plan

Swent: Do you recall when you first became aware of this?

Thompson: Probably back in around, I would imagine, '81, thereabouts.

Swent: Not until then.

- Thompson: No. Actually, it was in January of 1982 that I was appointed to serve on the committee to review, as it said from the minute order, "To review and provide timely comments on the study plan and the baseline report." And that was a committee made up of representation from all three counties--from Napa, Lake, and Yolo. The first meeting of that committee was in Napa County on February 10, 1982, so that's when it really formally got started. Of course, there were discussions with staff people and, you know, preliminary discussions, but officially the action with the Yolo County Board of Supervisors. And from there--
- Swent: I suppose the first thing was when a permit application came in.
- Thompson: That's right, that's right. They would have to apply to the planning commission--
- Swent: They had to have a use permit.
- Thompson: Okay. The dates that I have are: on November 9 in 1982 there was a letter written to the planning director, Ben Hulse, who was director of community development, from Ray Krauss, outlining the request for--
- Swent: Ray was the environmental person for Homestake.
- Thompson: Right. That's right. He was sort of that lead person, communication. And it outlined a request for initiating the action regarding the process. In other words, the letter was written to the director of community development. That was on November 9th in 1982. On December 14 in 1982, a letter was written to the chairman of the Board of Supervisors at that time, George DeMars, from Ben Hulse, the community development director, where it outlined the request to the planning staff and to accept applications for the project. And also the county had to amend certain portions of the Yolo County code for this project to go ahead.
- Swent: That was the rezoning?
- Thompson: Rezoning and other kinds of things that existed. So that really kicked it off on December 14, 1982, with this kind of sequence of things.
- Swent: This planning commission.
- Thompson: Yolo County Planning Commission.

- Swent: Yolo County Planning Commission. These were people, not supervisors.
- Thompson: No. They are appointed by the Board of Supervisors.
- Swent: Appointed by the Board of Supervisors.
- Thompson: Right. And any project is always initiated through them first, but the board had to recognize a project of this size and give the go-ahead for it.
- Swent: Was there a separate public works department?
- Thompson: Oh, yes. There's a separate public works department. There are a lot of county departments involved in this process.
- Swent: And these also were appointed.
- Thompson: The public works department head is an appointed official. The elected officials in Yolo County are the sheriff, the assessor, the auditor-comptroller, and the county clerk-recorder, et cetera. But the other positions are appointed heads, like the community development director is appointed, as well as public works.
- Swent: That is Ben Hulse?
- Thompson: That's Ben Hulse. And then the air pollution control district, of course, which also played a role in this, is the one I described to you earlier. That was made up--it's a two-county district, and it has its staff member, Jim Koslow, who was the director of that at the time. He has since retired.
- Swent: So these appointments held over beyond the election.
- Thompson: Now you're talking about two different things. Staff people who are appointed are permanent, not elected. They're hired. In other words, the appointment is just kind of a name of--the final action that takes place when a department head is recruited and the interview process is over is that they are appointed *per se*, upon recommendation, by the Board of Supervisors. But that's staff.

The planning commissioners are unpaid volunteers. They get some little stipend, but they are appointed. They have terms, and they're appointed so many from each supervisorial district, and that's how basically it works.

- Swent: I see. So Ben Hulse was--

- Thompson: He was staff. Everybody was staff. Lloyd Roberts was staff, Lee Humes was staff from county counsel's office, and everybody else is staff with the exception of the planning commission members.
- Swent: But the commission members made the recommendation and passed that up to the Board of Supervisors?
- Thompson: Actually, staff did. Staff received the letter from Homestake and then, because the applicant had requested to be allowed to file, staff reviewed it and then passed it to the Board of Supervisors with the recommendation to accept the application. That began the whole process, itself. So it's just a formality, really.
- Swent: So the first step was to accept it.
- Thompson: To accept that application, as such. What you do is initiate that. Then comes all of the studies and the rezoning and everything that has to go into that.
- Swent: Right. That sets in chain a whole process.
- Thompson: Everything, yes. That's right.

Rezoning to Permit Non-Agricultural Land Use

- Swent: And you had to rezone what?
- Thompson: Rezoning took place, I think, because of--well, there were several things. You had to rezone the land if it was zoned ag or AP.
- Swent: What's AP?
- Thompson: AP is ag preserve. It would no longer be used for agriculture use, which would be range land or whatever else it would be used for. So that would have to be a change of zoning to permit an operation of a commercial nature there.
- Swent: Had any of this land been actually farmed?
- Thompson: No, none.
- Swent: Just grazed.

- Thompson: All grazed and somewhat poor grazing land, also. But that all had to be done. One of the big issues that was a concern had to do with changing the ordinance to allow private reservoirs and retention basins and water transmission facilities to engage in mining activities, because heretofore they were just for farm ponds or cattle, whatever.
- Swent: But I understand that Homestake didn't decide till quite well along in the process to put that reservoir in Yolo County.
- Thompson: That's correct, because this came about in--well, in May of 1983, the Board of Supervisors accepted petitions from concerned Capay Valley citizens and Yolo County residents. And they requested both the planning commission and the Board of Supervisors to hold extensive hearings, public hearings, before taking any action on this project. They were very concerned over it.
- Swent: They knew they needed a reservoir, but they could have put it in any one of several places.

Opposition to an Ordinance Allowing a Reservoir for Mining

- Thompson: Oh, certainly. That's right. But that was their concern there, and what would be the possible impact on Davis Creek by putting this reservoir in. And in July of 1983 there were verbal presentations from citizens, staff, and Homestake representatives relative to an ordinance which is called 6-81.102. It was an ordinance that allowed private reservoirs and so forth to be associated with mining activity. That was what really got people all excited. Petitions came forth, and letters to ask the Board of Supervisors to rescind the ordinance, to allow time to gather signatures for a county referendum. It went so far as to--the people actually wanted to put it on the ballot. And they went around and collected signatures of people all over the county, not just Capay Valley. This got bigger than that. There were about 400 or 500 signatures, I guess, collected in a very short space of time--very, very short space of time. And part of that petition--I think it's called Friends of Agriculture or something or other--I have given a copy of a letter in the packet for you to look at. But there was time to allow testimony, to allow review, to allow all sorts of things to look at what this reservoir would do.
- Swent: Were they concerned about the water quality?

- Thompson: Yes. They were concerned over what would happen to Davis Creek. Davis Creek flows directly into Cache Creek, and that's what they were concerned over. All of those things as to what would happen.
- Swent: That it would be contaminated?
- Thompson: Well, Davis Creek is supposed to also contain, I guess, runoff from some old mine tailings up there, too.
- Swent: There had historically been mercury mining in there.
- Thompson: Yes, all around in there. And that all played into it. But it was basically what the impacts would be on Cache Creek, itself, and how that particular pond was going to be used. And so extensive studies were done; just very, very extensive studies were done.
- Swent: Davis Creek is a tributary of Cache Creek.
- Thompson: Yes. That's right.
- Swent: And it's known technically as the Putah-Cache Creek Hydrographic Unit, I discovered.
- Thompson: Could very well be. Right, right, right.
- Swent: So it's a drainage area which is quite large.
- Thompson: That's right, it is.
- Swent: And a very sensitive part. So it was primarily the water that people were concerned about.
- Thompson: Oh, yes, very definitely, because they were concerned over air quality for while, and I think that was monitored, and there was a lot of study done on that. They set up some early monitoring things for that. They were concerned over, actually, what would happen to the land. Previous examples of open-pit mining in the United States had not always been done in the proper fashion.

Well, even going back to hydraulic mining here, which has been a disaster, from the old days, with the stuff that's still going on, because--they were just fearful when the word "mine" was used. I mean, it just set off all sorts of things. But I think the worst thing was probably--and as you say, the lake wasn't decided--actually, the EIR was underway when they decided to have a lake in that location.

Swent: The environmental impact report, EIR.

Thompson: That's right. That's correct.

Swent: I was going to say, also, that there was no offsetting impact of employment, either. This was not bringing employment into a region, as it did in Lake County, for instance.

Thompson: No, no. Other concerns they had were hauling of materials up Highway 16. They elected to use Highway 16, which goes through the valley, to haul materials and things to the mine, and what those materials would be, and frequency of the trucks, and so forth and so on.

Swent: Yes, there was a traffic impact.

Thompson: Well, they were concerned as to what kind of materials would be going through the valley, because they had to haul other than just equipment through there.

Swent: But there wouldn't be any population change.

Thompson: No.

Swent: Not people moving in or getting jobs.

Thompson: No. But then the focus really, as I say and as you can see from this letter in here, became on the lake, itself, and the changing of the county ordinance where they thought it was going to open it up for a lot of things to occur.

Swent: So it wasn't only this direct project but other projects that might come in as a result of the rezoning.

Decision Not to Attend Meetings of Technical Staff

Thompson: Could very well be. That's right. And I think that could have triggered the concern over gravel in the back of it. Plus, the people then--this committee was formed, as I say. They called it an EDAC [Environmental Data Advisory Committee]. The people were very upset over the fact that I was appointed and so was Mr. Hulse. They went over the records and had said that Mr. Hulse had missed two meetings and I had missed ten out of twelve meetings, and they questioned as to why I didn't attend them. The reason I didn't attend them, they were all technical meetings. I always felt when I was a supervisor that I did not

insert myself into staff working meetings with professional staff people. There were no other elected officials there. I was always welcome; it was always open; but when I looked at the agendas, they were extremely technical. They would have had to have stopped and told me what they were talking about, and I would have had to take courses in chemistry and geology and heaven knows everything else. So there was really no reason for me to attend those.

Swent: These were EDAC meetings?

Thompson: They were meetings of the early, early EDAC committee. But our staff person was there, and then as they got into more of the mechanics of the whole thing, the EIR, the general thing, well, of course I attended those meetings. But, you know, to insert myself into things on toxicology and, as I say, water chemistry and vegetation and aquatic ecology and heaven knows--everything else--I think--I always found that staff, professionals, felt more comfortable when they could sit down from time to time. They could make no decisions. All they did was provide technical input to each other and try to work these things out.

I always felt that whenever there was an elected official sitting in there, the meeting always was entirely different, and they were not always as comfortable. And I felt they needed to have that atmosphere to work in. At the time that it would be appropriate, I would reinsert myself into the process.

But these people were getting--I guess because this thing seemed to move very fast, and so they became very upset over this. So we slowed the thing down and allowed for a lot of public hearings. I recall through a lot of this process that the supervisor, Harold Moskowitz, from Napa County, who was chair of our EDAC committee, was very, very helpful with everything.

The EDAC Committee: More Broad and Less Technical

Swent: As you recall, how did this EDAC committee come to be?

Thompson: It came to be because there was a need for having a three-county committee to kind of review the work that was going on relative to [what] this EIR had to cover. Napa was the lead agency, of course.

Swent: How did Napa come to be the lead agency?

- Thompson: Because the site of the mine was mostly in Napa.
- Swent: Who decided?
- Thompson: Where it would be?
- Swent: Who would be the lead agency? Do you know?
- Thompson: Well, I guess it was just decided on the basis of where the main location of the mine would be, which was basically all in Napa County except for a portion of Lake and then just a teeny, tiny smidgen for Yolo County.
- Swent: I've read, "It was decided." But I don't know how it came to be decided.
- Thompson: It was decided mutually. I don't think that Yolo County wanted to be a lead agency, nor did it have the money to do that. Actually, Napa County was far more impacted. If the site of the mine had been in Yolo County, we probably would have been the lead agency. It was just logical for it to be Napa and Lake, with Yolo County being--because it was actually at the crux. One time we were up there having a meeting at the site, and there was a supervisor from Napa County and the supervisor from Lake--Mr. Day from Lake, Mr. Moskowitz from Napa, and myself from Yolo County. And so actually, we stepped off three or four paces, when we were all standing in our respective counties, at one portion. So it's logical, even in doing EIRs, that the lead agency is determined basically because of economic impact or something of great significance that would determine the lead agency.
- Swent: So much has been made of the fact that there was this three-county collaboration. I guess I was just trying to get some feeling for how it came about.
- Thompson: I thought it worked very well. Actually, the supervisor from Napa County perhaps understood more than the supervisor from Lake County--
- Swent: This is Moskowitz?
- Thompson: Yes. The concerns of the citizens. And if you can interview him--
- Swent: Yes, I've talked to him on the phone.
- Thompson: He is just great.

Swent: I am going to interview him.

Thompson: Just when the people were ready to skin me alive at some of the meetings, and the supervisor from Lake County thought I should be almost thrown out of the meeting room, I guess, Moskowite exhibited the utmost patience. And we developed an excellent working relationship. The supervisor from Lake County was a little harder to work with in the fact that he was--

Swent: This is Day?

Thompson: Yes. He couldn't understand why they were concerned; they weren't even involved in the thing. And actually, what this was going to do in the way of jobs and, of course, the jobs thing came, I guess, more from Lake County.

Swent: Yes.

Thompson: That was their big role there, you see. So he couldn't figure out why anybody from Yolo County should even be remotely interested in the project at all. Anyway, it was a tough, tough time for a while, but it just took a lot of working and openness. I've always been a firm believer in openness as far as the public process goes.

Deciding Based on Facts; Mediating Disputes

Swent: It sounds as if you were sort of a proponent of it from the start. Is that fair to say?

Thompson: You mean a proponent of the mine?

Swent: Yes, or at least not an opponent.

Thompson: I probably knew that the mine was going to be a go because of where it was located. I had original concerns relative to not knowing what kind of company this was and seeing some of other examples of companies that did not do good jobs.

Swent: I would think with all of this pressure on you that you naturally might have been really very opposed to this.

Thompson: Yes. I've always kept an open mind when it came to anything. And I always lay out all the facts with everything. And I never did go along with my constituents if I felt they were going in the wrong direction. I always tried to represent them

in a manner by gathering all the information, all of their concerns, and then looking at the decision I had to make in totality.

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Swent: You were saying that you had to make up your own mind as to whether to support this.

Swent: Well, I had to do this based upon a lot of facts. I've always made decisions based on facts, and I have tried to keep my emotions out of things, and I have tried to always mediate between opposing factions. I guess that's always been one of my greatest roles as being a supervisor. I've tried to mediate disputes and come to some sort of compromise or consensus. On anything. Givens were that the mine was going to be located in Napa County basically and that the main counties involved would be Napa and Lake County, with Yolo County playing a very small role, until, of course, this reservoir [chuckles] came into being.

I guess my role was to find out exactly what was going to occur, how it was going to occur, and what some of the safeguards would be in the project today, as opposed to the lack of safeguards in old mining operations in the past throughout the United States. And I felt satisfied that this company really wanted to do it right. That's the first thing that impressed me.

"This Company Really Wanted to Do it Right"

Swent: Whom did you talk to from Homestake that made you feel that way?

Thompson: Well, I guess it was--and I can't remember the names of the first people that came out. I don't know if the president of the company came out first. There were some early meetings, and memory doesn't serve me well insofar as who all these people were, but I guess it was people like Ray Krauss and--

Swent: You might have met Don Gustafson. Do you remember him?

Thompson: Yes, I remember him. He was another one. And then there was-- was it Campbell? Or what was his name? The other project people that were involved with this, too. I guess if I had a

list of names I could probably recognize them, but I can't just pull them out of the air.

Swent: Right. I don't have one. There was a lawyer, Dennis Goldstein.

Thompson: Oh, yes, yes. Right.

Swent: David Crouch?

Thompson: Yes, I remember him. I guess that after talking to these officials and meeting with them over a period of time, I was satisfied that they wanted to make this kind of a model project. It would be the first one of its kind in the State of California. And I felt that because of some of the past work they had done in recent years, that they were not only interested, of course, in the product but they were interested in not leaving the site as a moonscape or something and moving on somewhere else.

Checking on Homestake's Track Record

Swent: What past projects were those?

Thompson: Well, I went over to look at one they had in Nevada.

Swent: Which one? Do you remember?

Thompson: Oh, golly. I'm trying to think of where we went, whether it was north of Battle Mountain or something. I think we flew and then we drove to it, if I'm not mistaken, over there. But it showed some of the erosion protection things that they had done with this particular site. It was in kind of northern Nevada.

Swent: They took you there?

Thompson: Yes. So I went over. And I guess it was just through reading about this and, of course, then my constituents did thorough research on this and found that they were a reputable company, that they were not a company that just could care less about what happened. And I guess that's what really started me thinking on it and trying to work together to do something positive. I really liked working on this committee, especially the points in time that we got down to the nitty-gritty of the EIR process, because, as I say, this EDAC committee, the

technical people on the committee, met many, many times, and that's why I was being criticized by part of my constituency.

It was just a committee to review the process, made up of basically those elected, augmented by the technical staff from each one of the areas that they could draw in. So it was kind of neat. We met around in each one of the counties. We met in Winters when we met in Yolo County, which was closest to the area because there wouldn't be anyplace to meet up at Capay Valley. A number of community meetings were held by Homestake staff in Rumsey with valley residents.

Swent: At some point, Homestake set up an office in Woodland.

Thompson: I think they did. I saw this, and I can't remember where it was right now. But they joined the local organizations and tried to do a lot of PR [public relations] stuff, which was very, very good because they would make presentations to agencies. They were always very open about people asking questions, and to a degree of visiting the site if they didn't get in the way of some of the construction. But there was never any reason, in the many meetings that they held in the Capay Valley, which I think some of the staff members will probably never forget or wish had never happened. It was very frustrating to those people who were engineers to have to go through all of the concerns and fears of the citizenry, some of which were not too bad. I mean, there was validity to some concerns and I would say emotionalism to others. Unknowns and things like that. But anyway, we got it all worked through.

Swent: Can you remember a barbecue that they had? Bob Reveles? Do you remember Bob Reveles?

Thompson: Yes, I remember that name.

Swent: He organized a big party and a barbecue at Woodland.

Thompson: At Woodland.

Swent: I wondered whether you thought that had been of any significance. Maybe not, if you don't remember.

Thompson: I actually--I hate to say it, but in ten or twelve years, I just forget things.

Swent: That answers the question, that it wasn't all that--

Thompson: But it may have been at the time.

Swent: It was early on that he set up his office.

Thompson: Do you remember where he held it? Did he say where it was?

Swent: Downtown.

Thompson: Oh, really?

Swent: I think so.

Thompson: Oh, yes! They had kind of an open house thing.

Swent: Right. Invited the whole county.

Thompson: Right. That's right, that's right. It was kind of an introductory little open house.

Swent: I wondered whether it--

Thompson: Well, the people of the valley were not going to be impressed by anything like that.

Swent: They would discount something like that.

Thompson: Oh, yes, yes. I mean, they'll attend something like that, and, as I say, there's a whole variety of folks up there. The ones that are the true professionals I had put on this list, and as frustrating as they may have been to some of the Homestake people, they had their own areas of expertise.

Concerned Citizens in the Capay Valley

Swent: Let's just go down that list, if you don't mind.

Thompson: Sure. [going through papers]

Swent: To get it on the tape as well. These are key people that you--

Thompson: Right. Of course, there's Shelford Wyatt with the Capay Valley Water Users Association. He was very much in favor of the project and felt that it would be a very positive kind of thing, which was a little unusual for someone from the Capay Valley to come out with that.

A few other people: Avery Tindell and John Ceteras from Rumsey were members of this technical committee that was set

up. Actually, it was set up by minute order, and I thought that was in some of your material. I will make sure you get a copy of the minute order. It was the last minute order that I probably participated in. I was chairman of the board when the whole thing was approved in '84, and I made sure the minute order contained public representation on this technical committee.

Swent: What is a minute order?

Thompson: A minute order is a Board of Supervisors action. It's described as a minute order. Then it varies from minute order to ordinance to whatever--the technical, legal stuff. But a minute order is what is done every time that we vote on something at a Board of Supervisors meeting.

Swent: It goes into the minutes as an order?

Thompson: That's right. So anyway, then this technical committee, which was composed of all of those names that you have of the various technicians--some from the University of California at Davis--did have two public members. One was Avery Tindell, and the other was John Ceteras. They were from Rumsey. They are from Rumsey. They're still there. They are very active, especially Avery has been very active in the gravel thing. And they were the first public representatives on this technical committee. I don't even know if the technical committee still exists now, because that was formed after I got off the board in '85 and whether they perceived a need for its continuance or whether they don't meet as often.

But something occurred, and I guess they only wanted one member on there. I can't recall. As I say, I was off the board, and I went by reading the paper and hearsay as to what happened to the public members. But the public members felt that they were sort of being dumped. I guess it was because maybe it was felt that they were being too picky with some of the things they felt should be going on in the monitoring process. I have no idea. They will be able to tell you a little more about that. Citizen representation is crucial to the continued success of any committee of this kind.

And Bob Speirs was also a very active member. He is a doctor in a certain scientific, technical endeavor. He retired and lives up there with his wife Mitzi, who's very active in the community also. I thought he would be good to talk to, too, if you want to. Any one of these three people would be very good.

But they followed it and kept following it. There were other people, too. I haven't all put them on the list because I didn't know how much time you had to interview a lot of people. But you need to get a variety of views. I feel that all of them would approach this with a professional aspect, plus giving you the feel for the folks there and perhaps some of their concerns relative to their backgrounds.

Swent: I've heard several mentions of a professor at Davis who was violently opposed.

Thompson: Is that Will Baker?

Swent: Possibly.

Thompson: Will Baker is an English professor at UCD [University of California at Davis].

Swent: He must be the one. Several people have said they remembered him, and they couldn't remember his name.

Thompson: Okay. That's Will Baker, and he still lives up at--I think he's up at Rumsey, too.

Swent: And he was very much opposed.

Thompson: Will Baker had some very strong feelings about it, yes, that's right. Very definitely, yes. He's a UCD professor. In fact, before you leave I will get you his phone number. That would probably represent a whole perspective of views, but the rest of these folks were all very outspoken. I mean, you can ask some of the Homestake people mentioning the names I've just given you, and they will also shudder, but I have tried to get you a broad-based list of folks with varying views.

Swent: Well, that was all part of the process.

Thompson: That's right, that's right.

Swent: And you had to reconcile all of these.

Thompson: That's right. And try to retain a confidence which, as you can see by just my electing not to go to all the technical meetings, they felt that something was going on or this or that. So anyway, I tried to make it as open as possible. And having worked with all these people in developing the general plan up there, I sort of knew where they were coming from and knew what they would like to see. I guess to a lot of other people from the other counties, they wondered why all of these

people were doing all of these things to delay this project which was going to provide jobs and all sorts of great things. It got a little bit testy from time to time, needless to say. But I just really developed a tremendous amount of respect, as I mentioned before, for Harold Moskowitz. He was also chairman of the Board of Supervisors for Napa County.

Swent: It's interesting that there wasn't, at first, any real organized opposition in Napa County.

Thompson: In fact, the Lake County Board of Supervisors had a meeting, and the Capay Valley people went to the Lake County meeting in Lakeport and attempted to get everybody organized up there. At that time, the Board of Supervisors was a very conservative board. Very much growth-oriented.

Swent: When was that?

Thompson: That would have been back during this process.

Swent: Early eighties, perhaps?

Thompson: I would think so. And they were not thought of too kindly, and I got a couple of phone calls about how come all of my people went up there? I said, "Because I'm not their keeper. They can go anywhere they want to."

Swent: [laughs]

Thompson: So anyway, it was kind of interesting, because they're very active, but I always look back on things now and I guess doing the general plan did bring them together, but it really hasn't been all bad, because I can assure you that nobody even looks at that little valley over there to do anything of any huge significance in the way of a development without knowing that there is a group there that is going to watch.

Indian Gambling a Problem in County Planning

Thompson: They've got a problem now with an Indian gambling scenario that's going on, over which they have no control whatsoever. It's a real shame, because, depending on how far the thing goes, I think it could impact a large portion of the valley if differences are not worked out between the two groups and the county.

Swent: There are some resident Indian groups.

Thompson: Oh, there's a reservation up there, and there's absolutely no local control, except the sheriff has to provide services, the health department has to provide services, and you have to provide the services. But you have no control over what goes on there, because it's federal land. And I think that that's going to be changed someday at the federal level, because I've always felt the reason Indians felt they were second-class citizens is because they were set out from the rest of society, on these reservations. And actually, the irony of this whole thing is that some of the reservation land has been the poorest land in the United States that anyone could find to give to them, except what happened? Oil was discovered on a lot of it, and they became very wealthy.

And then with the gambling scenarios that sprung up all over, they found they were not under any local laws, and they could have gambling or whatever they wanted to going on there. Anyway, something is going to have to change somewhere along the line, I think, to bring it into a situation where it's not going to impact the local community significantly. I think that the Indians, themselves, don't want to be bad neighbors, so that may have to be worked out that way.

But anyway, that's the group of the Capay Valley. They're very much in tune with what's going on as far as activities or projects for the community.

Swent: I'm looking forward to meeting some of them.

Thompson: I think you'll like them. They're very direct, which is good. They're a good group of people. As I say, without them I really sort of wonder what form the EIR and everything would have taken. These questions would not have arisen, even though there were a lot of questions that were raised by agencies such as--BLM [Bureau of Land Management] had some questions. I wrote down some names of some outside entities for you, whether you had contacted--.

Swent: I don't have any names from BLM.

Thompson: They are based in Ukiah. The man that was basically assigned to this--he was what you called the natural resource manager--was Bill Larramendi out at Ukiah. He may even be retired now. I don't know, but they could probably tell you. He would be a good person to talk to. The other one I put down that had some concerns was SID, Solano Irrigation District--definite concerns--and Brice Bledsoe would be your contact person there.

He is retired now, but he was their general manager, and he can still be reached through the irrigation district.

Swent: Yes, they and the dam people had really strong feelings; justifiably so.

Thompson: Right. A lot of agencies had concerns, but they were all addressed in the EIR and steps were taken to work these things out.

Swent: So the process as it came to you was, first of all, the request to accept the application?

Thompson: Yes.

Swent: Then once you accepted the application, then you had to start the rezoning and the issue of the use permit.

Thompson: And then the EIR process started, our participation in that, everything.

Swent: That was federally what?

Thompson: Well, the Environmental Impact Report was done by a consulting firm. I don't know how many volumes it was. I think it was three or four volumes of something like--

Swent: Was that the D'Appolonia report?

Thompson: Yes, yes, it was. That was it. That was the main one. And, of course, there was first draft, second draft, you know, as they come out, with everything it contained.

Swent: Well, this certainly involved extra time. Did it involve expense to the county?

Thompson: No, because it was paid for by the applicant. EIRs are usually paid for by an applicant.

Swent: And as I understand it, actually a staff person was hired by Homestake.

Thompson: Yes. Absolutely. And they were staff to EDAC. He would review the EIR progress as it went along, and then our meetings consisted of hearing reports on the progress of the EIR and where areas of particular concern had been pointed out. And as we went along with each stage, why, those things were addressed or if they weren't addressed, that's when you have a hearing,

and you continue the public hearing in order to address some of the concerns.

Swent: But the hearings were county by county.

Thompson: Yes, all held in various counties.

Swent: There were no tri-county hearings.

Thompson: No.

Swent: Did you have any say over selecting a staff person, for instance?

Thompson: Oh, I can't even remember that. I think that it would have been--Ben Hulse knew, of course, a lot of these people that did this work, and there were applicants for that. Then it would be based upon their recommendations, and they came up with a couple of people--two or three people, or whatever. Actually, I relied on our county staff person, who, being a director of community development, was very knowledgeable as to who some of these people were, because being a supervisor, heavens to glory, I wouldn't have the foggiest notion of who some of these people were.

Swent: Of course, you had a lot of other things going on, too.

Thompson: Yes. There just wasn't Homestake. It was roads and health and courts and children and the university, and it goes on and on *ad infinitum*, yes.

Swent: This was just a side issue.

Thompson: Well, it's a big issue--it was a big issue in my district, but there were other things going on in the county at the time.

Swent: Did EDAC have anything to do with the selection of D'Appolonia to do the EIR?

Thompson: I am trying to think of when they were selected.

Swent: I think that was the EIR.

Thompson: Yes, it was, because I remember that name. And I remember going through and looking at a lot of information and data and whatnot. The normal rule is that when an application is submitted, an EIR has to be done. Then there is a request for proposal that's sent out, and the various firms answer that, and then it comes back. And since this was a three-county

thing, with Napa being the lead, the other two counties, which would have been Yolo and Lake, had to respond to all of that. It's just part of the process. I can't remember. I don't recall any criticism from the community on the selection of the firm that did the EIR.

Swent: Of course, they subcontracted to any number of others.

Thompson: Oh, well, there were so many technical areas that even in an EIR, you would have to be a professor of science in some of those to even understand what they were talking about.

Swent: It's amazing.

Thompson: A lot different than having an EIR done on, say, just building a subdivision or something. A lot more.

Swent: Yes, this is just incredibly involved. And it got even into the Indians. They did work with a number of the local Indians.

Thompson: Oh, that's right. I forgot about that.

Swent: For the archaeology and--

Thompson: Probably in Lake County and Napa, too, I think.

Swent: They discovered some artifacts, and, of course, fish and birds.

Thompson: Of course, where the site is now of the mine is where that-- what do they call it? One Shot or something?

Swent: The One Shot Mine?

Thompson: One Shot Mine, with the little guy that used to have that up there. It was a mine before, and he just hung onto it and kept doing a variety of little things. Never had much money.

Swent: Bill Wilder?

Thompson: Yes.

Swent: He has plenty of money now.

Thompson: Oh, yes! I guess he hung onto it long enough. [laughter]

Swent: I think he did well.

Thompson: He just never had the wherewithal or anything. He probably knew there was something there, I think, but he never had the

money to get to it. But anyway, it was the site of a mine, anyway, so it wasn't as though they just came out and--

But they did. I remember seeing stakes when they did their original staking along some of the ridges, following, I guess, what the veins would be, to see just what the possibilities were, even up by Indian Valley. They went far, far--very big areas, staking things out.

Swent: They had to check all the plants and the animals.

Thompson: Oh, my, yes. Everything, everything. That's right. But anyway, I developed some very good relationships with the staff and with the people of Homestake. In fact, I'm going to have to miss their big function this coming weekend--

Swent: Oh, that's too bad.

Thompson: --because I'll be somewhere else. But I'm sending our son up. Our oldest son will be able to go, so I called Ray and told him I wasn't able to come. I was there for their one millionth ounce of gold.

Swent: That was a year ago.

Thompson: Yes, that's right.

Swent: Well, the EIR had to be accepted then. And you had to vote to accept that. Is that correct?

Thompson: Well, the planning commission reviews votes on the EIR, and then the action on the board would have been to have accepted it with any revisions or changes the board would make. [shuffling through papers] It's one minute order, but there are many parts to it. And it accepts that. Because the proposed final EIR was started in about '83, I think. That's when they started the final one.

Swent: I have it. The EIR-EIS. There's a distinction there.

Thompson: Right.

Swent: Between the report and the study.

Thompson: Yes. Okay. I have May 13 of '83, the Yolo County planning commission held a hearing, and they were going to review the adequacies of responses. The final draft of the EIR was out on May 13, and the planning commission was going to meet on May 25 of '83.

- Swent: The application, I think, was completed in October '82.
- Thompson: That's probably correct. And then on April 10, you see, that's when the Board of Supervisors had it on their agenda for the final consideration.
- Swent: The actual construction was begun immediately after the EIR was certified.
- Thompson: Yes.
- Swent: And before the permits were finally given. I guess they just took a chance.
- Thompson: I think they did. Well, actually, I think that the other counties had already passed them. We may have been the last one. The permit to construct was probably issued by Napa County, since their building department would have purview of that.
- Swent: They must have had temporary permits.
- Thompson: Oh, sure. They always issue temporary permits.
- Swent: They couldn't have gone on without some permit.
- Thompson: No. But that would have been basically--then the main county where the mine was going to be located would issue the permits for facilities construction, which would have been Napa County.
- Swent: I don't understand how that works, but--
- Thompson: Well, they issued temporary permits, and there wasn't a problem in Napa County, and there was not a problem in Lake County. The problem was in Yolo County with the questions and concerns. There was no facility construction in Yolo County, just the pond, and by the time that the pond problems had been worked out, that fell along--because they weren't going to construct that right away, anyway, so that worked out in line with everything.

The Technical Monitoring Panel Addressed Concerns

- Swent: I have a question about how or what changed community response. Or maybe it didn't change, but there was a negative feeling.

Thompson: Well, I think as they went along, as they set up various safeguards, the technical monitoring panel, of which Mr. Tindell and Mr. Ceteras were public members. [It] actually was a big step. The monitoring became then a very high priority.

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Thompson: And so actually everything was answered. The pond, as you can see in some of the material that I've attached--you can read at your leisure--initially [was] a very big concern, and so time was needed to hold hearings and whatnot on that. When those were addressed, shall I say, to the best as they could be addressed, I don't recall that there was a hue and cry for the Board of Supervisors to oppose this. I think the people understood after a while that it was going to go. Whether Yolo County approved it or not, it was going to go. And if it was going to go, what kind of safeguards could we put in to make sure that it went right. That's what all of these people who were the least emotional people saw. I mean, they could see a bigger picture down the road. "Let's work with folks to get the best possible scenario." Now, there probably would be people that would be opposed to the mine no matter what happened or what they did or what they decided to do. They just are opposed to mines in general.

Swent: And probably are still.

Thompson: Oh, I'm sure of it. Mr. Baker would probably be one. I have no idea how he feels today. He isn't that active, basically, today as he once was in some of the community things. He seemed to be more active. He's not involved in this gravel thing, or I have not seen him. He may be to a degree. But, actually, the interests of the people in the Capay Valley relative to gravel--they're not mining gravel in the Capay Valley; that's all further downstream, so that's just kind of an interest for them, I guess, with concerns that maybe mining could possibly occur there someday. I have no idea.

Swent: Well, it's been a long time. Those activists have gotten older. [Laughter]

Thompson: That's true. [laughs] When you get a little older--

Swent: There are younger ones coming along with different concerns, I suppose.

Thompson: They all care about the community, and from that standpoint I don't know of any "bad" people. I just know people that are probably, through their actions and questions, frustrating to

people, as I mentioned before, from Homestake, who have seen them as delaying projects for no valid reason. Ray is an interesting person within himself, who has admitted at times that he's somewhat short-fused when it comes to patience. Patience with questions and things like that.

Swent: I think you've described him as what? Very dramatic or something?

Thompson: Yes, that's right.

Swent: Was that the word you used?

Thompson: Well, he is, he is. Not unlike a lot of staff people that I've worked with. And it's very frustrating, especially to people who are technical people. Engineers go to public meetings. Some of my public works people when I was a supervisor would go in to explain a project, and then you get all of the emotional things. And people with a technical background can't relate to emotions because they relate to facts and drawings and statistics, and so they can't relate to emotional feelings about, "Why are you doing this?!" But anyway, I think some of those meetings Ray will probably never forget.

And an interesting sidelight to all of this is after I left the Board of Supervisors--and the board really looked to me. We looked toward each other when there's a project in our districts, even though this was a significant one for the county, we always looked to some kind of guidance or leadership or recommendations from each other. The supervisor who replaced me when I retired, Mr. Pfanner, was very much opposed to the mine. Probably some of the people who were opposed to the mine gained his ear. I'm not sure, but he did not make life easy, even though the whole thing had been approved and everything. He did not make life easy for the Homestake people. And that was kind of interesting because, actually, it all happened, but he is kind of a unique person. Since I'm on tape I won't go into detail, but he's a unique person unto himself, and you would have to defer to some of the Homestake people as far as their feelings there. It was too bad, because I felt that in some ways the attitude was because he had not been able to have a part in the process, so therefore, even though it was at the end, he was going to use his power to annoy, perhaps, if nothing else. And I think that's too bad because I see that as sort of an obstructionist kind of approach. So, a decided change from my tenure to his tenure.

Then those things happened, but I don't know, and I would like to find out if they have this technical panel to this day

because I see that some of the people that were on there that did resign were technicians because they felt their area had been satisfied and there was no need to continue monitoring in this particular field.

Swent: Well, if I find out, I'll let you know.

Thompson: One of them may be in here. [looking through papers]

Oh, Daniel Chang was the air quality member, and I think he resigned from the technical review panel because he just felt that it was not necessary for him to be on there. They didn't actually appoint that technical review panel until October of '85. As I recall, the supervisor was quite involved in that, and I think that was somewhat of an irritant to some of the Homestake people for foot-dragging on that particular thing. That's interesting because it may come out in this letter that Ray wrote. I have a copy of the letter he wrote to the CAO [chief administrative officer] of the county.

Actually, this project went through--did it go through two or three CAOs? In let's see, in 1982 Dave Rowlands would have been the CAO, and then Gene Roh came in because Dave left to take a position with San Joaquin County. And then Gene Roh was the one county administrative officer in 1985 because David had left at the end of '84, or thereabouts. So anyway, it's kind of interesting.

And this Jan Lowery, I've put his name down, you will find a very interesting interview with him. He was chairman of the planning commission. He also is a resident of Rumsey and a delightfully objective person. He also has a flavor of the people in the valley and their feelings about the whole thing, so you will probably enjoy interviewing him. His father was an assemblyman for years, representing Yolo County in the state assembly back during the fifties--Lloyd Lowery. Jan Lowery not only can give the planning commission perspective but also the community perspective, too, as well.

Swent: It's interesting the way these things build on each other and continue with successive incidents, challenges, periods.

Thompson: Yes. I'm trying to think if there's anybody else. Did you have names of people from Lake County to interview?

Swent: I have a few, yes.

Thompson: Did you have this Howard Day that was the supervisor?

Swent: Howard Day, yes.

Thompson: You'll find him to be a very interesting person, also. Everybody's their own personality, own philosophy.

Swent: I'm trying to recall. One of the people that was a key person recently died.

Thompson: I wonder if that was Howard.

Swent: I wonder if it wasn't.

Thompson: I heard that same thing, and I kind of lost track. Let me give you a name of--the planning director in Lake County then was John Thayer. And you could find out, probably, from just the county office headquarters there, the county information center.

Then there was a planning director. They were all equivalents of what Ben Hulse was here to varying degrees. James Hickey was the director of planning for Napa. You were given that name.

Swent: Right.

Thompson: Okay. Now, in case Bill Larramendi is no longer up there, there was a Timothy Julius who worked under Bill Larramendi from BLM in Ukiah. I don't know if he's still about or not. So that kind of takes care of that, I think.

Swent: Are there other things that we should cover?

Thompson: Well, maybe we should look at your little list here. [thumbing through papers]

Swent: I think we've pretty well done my little list.

Thompson: Well, air pollution control. I don't know if you want to touch on that. James Koslow was the air pollution control officer for Yolo-Aolano County (east side) at that time, and he is retired. Lives up by Placerville and does still retain a home in Woodland. In fact, if you want to turn the tape off for a minute, I'll look up a phone number for you.

Now, you mention the water district here, county structure. You're talking about the Yolo County Flood Control and Water Conservation District?

Swent: Well, I guess I was just trying to straighten out in my own mind the overlapping responsibilities.

Thompson: Well, basically it would have been the flood control district that was involved in that. I'm trying to think--yes, Jim Eagan would be your contact person there.

Swent: Now, all of the districts and departments and so on--

Thompson: Okay, the departments are county that I've given to you, except for the pollution control district was a two-county thing. It is called the Yolo-Solano Air Pollution Control District.

Swent: These others were independent districts?

Thompson: Well, it's air quality and pollution. Actually, air quality and pollution are the same. The planning commission, the public works department--I think I've differentiated on that. Then you even have the name of the county counsel staff person, Lee Humes, who should be interesting to talk to, also, because he was very much involved in this. Water district. James Eagan. And that number is 662-0265.

Swent: You know that.

Thompson: Yes, I work a lot with him and the district.

Swent: And any one of these groups, of course, could have just said no at any time, couldn't they?

Thompson: Oh, definitely, definitely. It might be interesting to find out how they felt about how it was finalized and then what happened to this technical committee. That's kind of the big question now, and I don't even know anything about it. Will Baker would also be very interesting to interview. If he is still with the university, you know, you could even set up an interview down there, maybe in his office. Or if you decide to interview people up the valley--

Swent: Spend a weekend up at Guinda.

Thompson: You might to do that and go to some of their farms. See what they would like to do or how they would like to work it out.

Swent: Are there places to stay up there?

Thompson: No.

Swent: Motels? Bed-and-breakfasts?

Thompson: Nothing. Absolutely nothing. It's very remote. They have some little eateries, little cafés, but--there was a hotel at Guinda that used to be there when the old stage line used to go up because that was a main line going up the valley to Lake County, when that road was open. People used to take the stage from Woodland and parts around here, and that was an overnight stop at Guinda, and there was a hotel at Guinda, complete with dining room and everything. But that was back in the 1800s or early 1900s, and it has long since been closed.

There was a man from Germany who bought some property over west of Guinda, and he was going to sell lots and divide the land and do all sorts of things, which, of course, it wasn't conducive--and there's nothing up there. There's really no water up there, and digging a well through rock, you know, doesn't always produce water, so he didn't have any surface water supply. So that sort of went by the wayside, but he was restoring the hotel to kind of use that for these people he would bring in. And for a while he did have a portion of it restored, and he was going to bring in a chef from Germany. I don't know about all of his big plans, but they all sort of went down the tubes after a while.

Swent: That's too bad.

Thompson: Yes. I often wonder about the gentleman, himself, as to how reputable he was because he was doing a lot of strange things without checking with the locals, you know, with the local authorities at all, e.g., the planning commission.

Anyway, I think that we've covered most of these. The Davis group were people that would have been involved with the construction of this reservoir, and there would have been some people, the friends of people--probably associates--involved, but not any organized group from Davis *per se*.

Swent: So the lasting impact, would you say, has been that there are still, maybe not organizations, but community coalitions formed then that are still--

Thompson: Well, some of these groups--the Friends of Cache Creek and this other group.

Swent: The Capay Valley group?

Thompson: Well, no. That other one. They're different. I should say, Mr. Wyatt's group, the Capay Valley Water Users, is more of a local group of landowners that are concerned over riparian rights, as opposed to the environmentally concerned Friends of

Cache Creek and the Cache Creek Coalition. Those two entities really surfaced more after the project was completed. The next immediate project to be concerned over for those folks was gravel extraction, and that started to become an issue about '85, '86, and that's when they formed. Because up until that point the only groups, as I mentioned to you, were the Grange and the Rumsey Improvement Club and some of the water--no activist environmental groups at all then--so this Cache Creek aggregate thing became very much of an issue.

Thompson's Lasting Impact on Capay Valley Planning

Swent: So it wasn't the Homestake issue that brought them together?

Thompson: I don't think so. I will go as far as, for the valley itself, the interest that people had in-county probably was triggered by the fact that we set up the Capay Valley planning group and got them interested in things, because they had no idea that they could ever do a general plan for the valley. I mean, they had no idea that they could be active, and I told them that they could do many things. The power actually was with the people and not in the person who represented them, and I always stressed that, and I guess that's been shown. It's carried right on down.

Swent: Have you opened a Pandora's box, after all?

Thompson: I don't feel that way. I mean, some of them are ticked off at me now, probably because of the aggregate issue. They feel that I'm sympathetic to the gravel industry, and they did have a ballot measure out once which divided even the agricultural community. It was an issue to not allow any building or growth or anything in the unincorporated areas. It was a bad ballot measure. It was a bad initiative. It was not written right. The first time it was written was to stop aggregate extraction. Well, then they found out that that was a little too direct, so they couched it in terms of land-use planning. I didn't support that issue, along with a lot of other people who were in agriculture, but I always felt that they felt that I was a traitor or something to the cause. But most of them, I think, still probably have a respect for me--as I do for them.

I always told people how I was going to vote. There were never any surprises. I listened to them and voted the way I felt it was right to do. I had to close a court over in Winters simply because the little court was no longer

economically viable. It was very hard for me to do. I made the motion to close the court. Usually, what you do politically is to let another supervisor make the motion, and then you vote against it and do all these games and things. I never played those kind of games. I never believed in playing games. That was very difficult. That's the time that I shed some tears, when I made that motion to do that. I knew what it meant to them, but I knew for the overall picture it couldn't go on.

But I still retain a lot of friendships. People understood what I had to do over there. I also was probably the last supervisor who financed their own campaigns. I never raised money. I paid for my own campaign myself.

Swent: You did it the good old-fashioned way.

Thompson: Those days, the last time I ran, cost me under \$3,000. Today it costs around \$50,000 to run for that same seat in that same district.

Swent: Isn't that awful?

Thompson: Yes. For a job that pays about \$18,000 a year, I think it is. [laughter] Everything's gone up, I guess, anyway. Anyway, this has been kind of neat, going back and revisiting things.

Swent: It is kind of good to put things together sometimes, isn't it? Have there been any physical consequences of this? Has the water--

Thompson: I don't believe so, because part of that Davis Creek, the pond and so forth, was all supposed to be monitored. That's why I'm really interested in knowing what happened to this technical panel.

Swent: Right, because they were the ones to carry it on.

Thompson: Yes. Because, you see, all of the key, with the exception of the public members--incidentally, no other county has a public member on their board. Yolo County was the only one that got it in there, and that was in the original minute order.

Swent: Which board is that?

Thompson: This technical review panel for Homestake that was formed. See, there was representation from air quality, aquatic ecology. That was Marvin Goldman, Dr. Goldman, from UCD, a known professor in that area. There was hydrology, statistical

analysis, toxicology, vegetation, water chemistry, water quality, and wildlife. So that was quite a panel put together.

Swent: It should still be.

Thompson: It should be. I would hope that it's still there in some form. I don't think they need to meet every turn of the eye, but I would think that they would have some sort of--because who is going to do it then? People come and go at Homestake, too. People don't always stay the same. I don't know what happens at the top of Homestake. Are they the same people?

Swent: No.

Thompson: They've changed.

Swent: They've changed very much.

Thompson: Is that right?

Swent: Very much. I think they still have the same dedication with environmental concerns. I trust that they do. I hope so.

Thompson: See, a lot of things can change when--

Swent: But it has changed. The current president is a man who actually is South African.

Thompson: Is that right? How interesting.

Swent: Who was with a Canadian company, although he's lived in the States. He's lived in Tucson, Arizona. But most recently lived in Canada. Homestake merged with his company, and he became president.

Thompson: How interesting.

Swent: So he comes in really as an outsider but evidently has the same concerns.

Thompson: Originally, I remember some of our early meetings with some of the corporate people. I think they really didn't understand the West. They didn't understand California, because they were more geared towards an Eastern philosophy kind of approach to things. It was kind of interesting. They were people that were used to coming in and getting things done. I don't think some of the corporate people were that much used to EIRs as such. They certainly found out about it out here. It was interesting. Just sometimes some of the things they would say.

The way politics are played back there and the way they're played out here are just two different things. I don't think that they were used to that public participation. But they found out about it.

Swent: They certainly did! [laughter]

Thompson: Which is all right. But the staff--I think the company has to give a tremendous amount of credit, if not all of it, to that staff of theirs that worked that project. They were really good people, good people.

Swent: They hung in there.

Thompson: Yes, they did. Yes, they really did.

Swent: And now they're talking about the end of it. It's going to be turned over as a natural resource center.

Thompson: Is that right? When do they figure that's going to happen? Because I know the years go by very fast. I lost track.

Swent: Well, another ten years, I guess.

Thompson: Is that right? They talked about one time maybe doing some tunneling, but I don't know.

Swent: Yes, they will do some underground mining at the end, I think, but they have an announcement that it's going to be turned over to UC as a resource, part of their nature reserve system.

Thompson: Great! That is really terrific. And you think that will be in another ten years or something?

Swent: Well, I think they stop mining the pit in another--well, they announced recently that it--the whole thing, I think, is going to wind up in 2002. Then it will be part of the UC nature reserve system, and people from Davis can go over there and study to their heart's content.

Thompson: That's great! That's good. That's great.

Now, your husband was associated with Homestake.

Swent: Yes. He may be one of these people you're talking about. I don't know if you ever remember meeting him, but he was--

Thompson: The name is very, very familiar.

Swent: He was in charge of their environmental affairs and would have been one of the people, I think, that you might have met.

Thompson: The people that I had in mind were the corporate. It was, like, more the management, administrative end.

Swent: He was senior to Dave Crouch.

Thompson: Crouch, I remember very definitely. But some of those early meetings, there would be three, four people, maybe, that would come out. But it was nothing--I have no criticism for anybody, but I was amused at just some of the--they had thought they had figured out how we worked out here. They didn't quite get the message, I don't think, until a little later. They found out.

Swent: Well, I think they did. Of course, now they really are so proud of it.

Thompson: Oh, my. They should be. Are they going to still stay in California, do you think, or will they go on someplace else?

Swent: Well, their offices, of course, stay here. But they've just announced a big new project in Nevada. A huge project near Eureka.

Thompson: What part of Nevada is that in?

Swent: Sort of eastern Nevada.

Thompson: I'm trying to think of the name of that project that was north.

Swent: I hope they do it as environmentally well as they did this one. But Nevada isn't quite as strict.

Thompson: No, no, they're not.

Swent: And doesn't have the concerns. There's not that much agriculture there.

Thompson: No. It's mostly sand and sagebrush, and a lot of it. That's right.

Swent: There was something called Round Hill. Was that where--

Thompson: Could very well be. I can see it, and I can see how we flew into this little community, and then we got in a car and we drove north. I remember driving north, so it would have been up towards--what would it have been towards? Idaho, I guess, right?

Swent: Yes.

Thompson: Probably. And then there was another project, but it was another company that wasn't too far from that one, which was an example of not always doing things the right way. It wasn't their operation, because I was very impressed with what they were doing in Nevada.

Swent: I don't really remember what they had there then.

Thompson: But anyway, I think the companies that were more farther advanced than some of the older companies saw the handwriting on the wall as far as some of these environmental things and what had to be done--to do and not do. I guess some of them are re-opening some of the tunnel mines in Nevada County and some of those places.

Swent: Up in the Mother Lode.

Thompson: Yes, yes, they are. Some of them are going in there. That's interesting. I guess that's why I took an interest in these folks because I've always been fascinated in the history of old mines, because we go up to Grass Valley-Nevada City a lot. The Empire Mine, of course, is there. I've just always been fascinated with the history of those and the workers and the miles and miles of tunnels. The Welch people, of course, came over and were the people that did a large amount of the work in the Grass Valley-Nevada City mines. Because they had done that.

Swent: The Cornish too.

Thompson: Yes, that's right. And they still do these--have you ever been up there to any of their little shows? They're a very musically-oriented community.

Swent: No, I haven't.

Thompson: And they have the arts. They're marvelous. They have some of these programs where they have a different series of concerts, and they still do the Cornish. They've retained the folk melodies. Yes, and they have all of those. They do a Christmas thing that's reminiscent of the old days.

Swent: Well, Twyla, the tape is about to run out, so I think we have to stop. I thank you very much for this interview. I have really enjoyed hearing from you how the permitting process all started.

Transcriber: Mim Eisenberg/WordCraft
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Western Mining in the Twentieth Century Series
Knoxville/McLaughlin Project

Avery Tindell

CAPAY VALLEY ENVIRONMENTALIST

An Interview Conducted by
Eleanor Swent
in 1997

Since 1954 the Regional Oral History Office has been interviewing leading participants in or well-placed witnesses to major events in the development of Northern California, the West, and the Nation. Oral history is a method of collecting historical information through tape-recorded interviews between a narrator with firsthand knowledge of historically significant events and a well-informed interviewer, with the goal of preserving substantive additions to the historical record. The tape recording is transcribed, lightly edited for continuity and clarity, and reviewed by the interviewee. The corrected manuscript is indexed, bound with photographs and illustrative materials, and placed in The Bancroft Library at the University of California, Berkeley, and in other research collections for scholarly use. Because it is primary material, oral history is not intended to present the final, verified, or complete narrative of events. It is a spoken account, offered by the interviewee in response to questioning, and as such it is reflective, partisan, deeply involved, and irreplaceable.

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It is recommended that this oral history be cited as follows:

Avery Tindell, "Capay Valley Environmentalist," an oral history conducted in 1997 by Eleanor Swent in *The Knoxville Mining District, The McLaughlin Gold Mine, Northern California, Volume VII*, Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 2000.

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INTERVIEW HISTORY--Avery Tindell

Avery Tindell's name appears frequently in the early history of the McLaughlin Mine. He was one of the Capay Valley residents who were concerned over the environmental impact of the mine, and in particular the Davis Creek Dam. Later he served on the Yolo County Technical Review Panel which was established as a watchdog agency for the environmental monitoring at the McLaughlin Mine. Tindell also had another connection with the story: his grandfather nearly a century ago was city treasurer of Lead, South Dakota, home of the original Homestake Mine. I approached Avery by telephone and by letter, and we arranged the interview with some difficulty, since he was maintaining a home in San Rafael, California, as well as in the Capay Valley. Family and personal health difficulties also complicated his schedule. Although somewhat reluctant to be interviewed, he wanted to air his side of the story.

The interview was conducted in the Regional Oral History Office on May 7, 1997. Avery brought many useful documents which he donated for our archives: large sections of the D'Appolonia environmental report; the Bay Area Air Quality Management District report of July 9, 1984, "Summary of Analysis, Homestake McLaughlin Project, Permit Application 29351"; Napa County County Conservation Development and Planning Department annual report/review of the 1987 environmental monitoring program, McLaughlin Project, May 1988; Rumsey General Plan, 1975; Environmental Data Advisory Committee report on review of the environmental monitoring plan, McLaughlin Project, November 1983; Yolo County PLanning and Community Development Agency report on review of baseline data adequacy, environmental quality standards, and enforcement--McLaughlin Project, February 1984; as well as miscellaneous correspondence concerning the Yolo County Technical Review Panel of which he was a member.

The tapes of the interview were transcribed in the Regional Oral History Office and the lightly edited transcript was sent to Avery Tindell for review in March 1998. He did not return the transcript, so it is included in the volume without any changes which he might have made. The manuscript was indexed at our office. The tapes are deposited in The Bancroft Library and are available for study.

The Avery Tindell interview is one of more than forty interviews which were conducted by the Regional Oral History Office from 1993-1999 in order to document the development of the McLaughlin gold mine in the

Knoxville District of Lake, Napa, and Yolo Counties, California, as part of the ongoing oral history series devoted to Western Mining in the Twentieth Century. The Regional Oral History Office was established in 1954 to record the lives of persons who have contributed significantly to the history of California and the West. The office is a division of The Bancroft Library and is under the direction of Willa K. Baum.

Eleanor Swent
Project Director, Research Interviewer/Editor

December 1999
Regional Oral History Office
The Bancroft Library
University of California, Berkeley

INTERVIEW WITH EDMUND AVERY TINDELL

YOLO COUNTY TECHNICAL REVIEW PANEL MEMBER, 1985-1992

[Date of Interview: May 7, 1997] ##¹Cal Berkeley Pre-Med Student Becomes Chairman of an Insurance Company

Swent: Avery, before we get into Yolo County affairs, would you mind telling where you were born, when, and a little bit about your family background?

Tindell: I was born in Oakland, California, on March 22, 1920. I was educated in public schools there, Technical High. I graduated from there in 1937 and went from there to Berkeley, Cal, in '37 and graduated in '41.

Swent: Just before the war.

Tindell: Yes. I attended summer session in '40, and in '41 I just took a course. It was that time that I believe I took some inorganic chem lab. I had previously taken the lecture in organic chem. In the afternoon, they had civilian pilot training. We had, I think, a group of about thirty from UC Berkeley and about twenty girls from Mills College. We did that down at Oakland Airport. Most of the girls formed the cadre of the Women's Auxiliary Flying Service.

I went to work in September of '41. My uncle was manager of an insurance company--

Swent: What was your uncle's name?

¹## This symbol indicates that a tape or tape segment has begun or ended. A guide to the tapes follows the transcript.

Tindell: Frank Leslie.

Swent: You were a pre-med major, you said.

Tindell: Yes. I had applied to Stanford and Cal, and didn't have a high enough grade point. I think I had just under a B, which at that time, I guess, we had three for A and two for B. But I think I had a 1.9. Now I guess it's four and three and two, whatever. So I went to work for another insurance firm, Pacific Marine Insurance Agency, as basically office boy at the grand salary of sixty-five dollars a month. With a college education and so forth and so on, I ended up chairman of the board of the firm when I retired.

Swent: Were you living at home?

Tindell: Yes.

Swent: So sixty-five a month was feasible.

Tindell: Yes, well, I didn't get married until after the war and I was thirty-seven at the time.

Swent: You stayed with Pacific Marine, then, all your career.

Tindell: Yes. It changed its name a couple of times and the ownership changed.

Swent: What did it become?

Tindell: Well, you have to understand insurance a little bit, but I initially started out in the ocean marine reinsurance and office boy department. After a couple of months, I was transferred into the marine claims department as assistant there. And I continued there until, I would say, shortly after I volunteered, after we got into the war. I believe it was the end of December; however, I didn't get called up until May.

Swent: That would be May of 1942?

Tindell: Yes. And you know, they had so many people to train, and so forth and so on, that they just didn't have facilities for them. So I came back and as I recall, I took a meteorology course at Berkeley here in the winter or spring of '42. At that time I used to take the meteorology readings up on top of South Hall for the campus--you know, humidity, wet and dry bulb.

World War II Fighter Pilot: Air Medal with Seven Stars,
Distinguished Flying Cross, Croix de Guerre

Tindell: When I was called up, I went through training and graduated in Williams Field in May of 1943.

Swent: Where is Williams Field?

Tindell: Chandler, Arizona. Well, initially at Thunderbird and then back at Minter Field near Bakersfield; and then back down to Chandler, Arizona. I graduated as a twin-engine fighter pilot and then we went down to Muroc Army Air Base, which is now Edwards Air Force Base. We were there a couple of months. We went down to Van Nuys on coastal patrol, and then we went back to Muroc as instructors for a short period of about three weeks.

Then we shipped by train back to Norfolk and went across to Casablanca on the Empress of Scotland. They flew us on a B-17 to our base which was about fifty miles south of Tunis. We were there about three months, and then we moved up to north of Foggia, in Italy, on the east coast near Manfredonia.

We were there until--well, I had an opportunity to come home for Christmas. I had flown sixty-two missions and our normal allotment was fifty. I had served as assistant group operations officer and then as squadron operations officer, so I got home in time for Christmas.

Swent: Of 1944?

Tindell: I was overseas from, let's see, September, October '43 to December. I left in the early part of December of '44.

Swent: So they were landing all the way up through--

Tindell: Well, I led a group of pilots in B-17s after they made the breakthrough at Saint Lô up to England, and we flew the P-38s back because they weren't very satisfactory in the European theater. We were in the Mediterranean theater. We were 15th Air Force there or 8th Air Force. The 15th Air Force was in the Mediterranean Theater operations and the 8th Air Force was up in England. And later, the 9th Air Force was in France. Of course that's basically what I had.

Swent: A lot of missions.

Tindell: I guess I had the air medal with about seven stars on it, D.F.C. [Distinguished Flying Cross], and a French Croix de Guerre.

Swent: You must have been shot down to get all those medals.

Tindell: No, I--no. [laughs] I did get shot up a little bit, but anyway, I didn't get shot down. I didn't have to parachute. After I came back, I was assigned to base operations at Stockton Air Field. That was the western terminus of the First Military Air Transport group. So we were there from about late January of '45 to August of '45 when I was terminated because of the points I had accrued. Then I made the mistake of letting my employer know, so I had about two weeks and that was all; they wanted me to come back to work, which I did.

Back to Work at Pacific Marine Insurance

Swent: Was it still called Pacific Marine Insurance at that point?

Tindell: Yes, at that time, yes.

So I went back to work and I went into what was termed the surplus line department, which was basically--surplus lines being types of insurance which the regular American companies were not willing to write and basically Lloyd's of London. I continued in that throughout, until I retired.

Swent: You said that the company changed its names various times. What were its names?

Tindell: Well, Pacific Marine Insurance Agency was owned by Appleton and Cox. Initially, in the early days, they felt that a local regional name was significant. Then I guess in the early fifties, the general feeling was that a national name was more important so they changed the name to Appleton Cox of California. It carried through that way. Appleton Cox was one of the original marine underwriters along with Chubb and INA in about 1870, in that period.

Swent: So when you became chairman then, you became chairman of Appleton and Cox?

Tindell: Well, that's getting ahead of the thing. Somewhere around the 1960s, Appleton Cox was bought out by Continental Insurance. No, I think it's 1965. Then Continental Insurance absorbed Appleton Cox, Inc., which is out of New York. They had an affiliate in Chicago--Illinois Appleton Cox. That left Appleton Cox of California by itself. That was what I was chairman of the board [of]. In the meantime, Continental had absorbed the

marine and the inland marine and the far [fire] end of the domestic operations.

Basically I guess that was that. My boss left in 1962 and at that time I was moved up to be head of the department. Then after I guess a few years having some confidence in me, I became a vice president and then eventually president.

Swent: You always kept your base here in the Bay Area, then.

Tindell: I was very fortunate. I worked all my life in San Francisco, although we did have an office in Los Angeles and Seattle. After the war I joined the Air National Guard. We were flying Mustangs, P-51s. I was in that from '48 to '52. We used to have an opportunity to fly that pilot proficiency up to Seattle.

Swent: Do you still fly?

Tindell: No.

Swent: Did you keep up your flying?

Tindell: Well, I still have a license, but my wife isn't too keen on it and it's pretty expensive, so, basically, that's about where we are.

Grandfather Avery, Treasurer of the City of Lead, South Dakota

Swent: Well, we want to mention your grandfather and then we want to get you up to Capay Valley. Let's get grandpa first.

Tindell: I really don't know too much about him because my mother was an only child and her name was Pearl Lucille Avery. She graduated from San Jose State Teacher's College in 1915. We had a property up out of Cazadero in Sonoma County which my father had visited up in that area since the end of World War I. In about 1953, coming down on US 101, we hit a deer--Dad was driving--and it jammed in our front wheel well. We ran into one of those oak tree, yes, I guess that's an oak tree, right near the Marin-Sonoma County border and my mother fractured her ankle. A month later she got a blood clot when they first started her getting up. That time they had them in casts. She got a blood clot and that was that.

Swent: For heaven's sake.

Tindell: And she had knee-high boots on, but just since she drove, too, she was pressing down on the floorboard knowing that the deer was running us towards the tree. I was in the back seat asleep and I just got bounced around a little bit. So anyway, that was '53 and my grandmother was still alive and she survived until '55. It was quite a shock to both my grandmother and my step-grandfather. From what I gathered, my mother was two when her father died of tuberculosis. She was born in 1895, so that would have made--Joshua Avery was treasurer in 1896; he would have died sometime in 1897.

Swent: And he was treasurer of the city of Lead, South Dakota. We just looked at the certificate that you brought down. A beautiful certificate.

Tindell: Then my grandmother remarried Thomas Hamilton Darrow, who was half-brother of Clarence Darrow. As a matter of fact, I have Clarence Darrow's autobiography signed by him. I think copy 246. My step-grandfather had quite a career in building bridges in the Northwest.

Swent: Where did she meet him? Do you know?

Tindell: In Lead, it must have been.

Swent: He was in Lead, as well?

Tindell: I really don't know because they had good friends in Spokane with the Spokane Inquirer or whatever the newspaper was up there. I really never queried her about it. And of course when my mother was living, you just don't think about talking about those things.

My grandfather was captain of Company A of the 18th Railway Engineers, which was the first outfit that went overseas in 1917 to build piers for the American Expeditionary Force to land at Bordeaux.

Swent: This was your grandfather.

Tindell: That was my step-grandfather, Thomas Hamilton Darrow.

Swent: But you really don't know anything about Mr. Avery, then. I was wondering if he might have worked in the mine and had what they used to call miner's consumption.

Tindell: I really don't know. My recollection was that he had some kind of training.

- Swent: But of course people had tuberculosis so much in those days, it was just rampant in any case.
- Tindell: And apparently he didn't have anything hereditary because we haven't any problems since then.
- Swent: But you don't know that he had any connection with Homestake.
- Tindell: Well, I guess he had to. Lead was pretty much a Homestake town.
- Swent: Well, yes, although that certificate was signed by Mason Tyler and he was a banker. The Tyler family never had any direct connection with Homestake. There were merchants and bankers and so on. He might have worked in the bank.
- Tindell: Yes, I guess they wouldn't necessarily have somebody being treasurer that didn't have any knowledge of it. Matter of fact, I have a gold piece about the size of that black deal there--
- Swent: Half an inch wide.
- Tindell: --that I inherited from my grandmother from Homestake. And this is Homestake gold. [shows ring]
- Swent: Your wedding ring.
- Tindell: Yes. You can tell that South Dakota stuff because I guess it has copper or something like that; it has a little reddish tinge in it.
- Swent: That's a nice connection, anyhow.

Acquiring a Large Farm in Rumsey: "It Had So Many Good Things"

- Swent: When did you get up to the Capay Valley? How did that come about?
- Tindell: They had a big fire out at Cazadero, about 10,000 acres. Over a period of time we had acquired 500 acres. Some of it was quite reasonable, something like ten or eleven dollars per acre. It came within about half a mile of our property.
- Swent: You had a vacation home there, did you? A second home?

Tindell: Yes. Basically, although my father retired up there. And that was a real wet spot: one year they had 144 inches of rain. Do you know Cazanoma Lodge?

Swent: No, I don't.

Tindell: Anyway, we had a little apple orchard there and my father retired up there for about eight years. He passed away in '70. And then this fire was in about '77, '78. Logging companies had to go in to salvage the timber within about a year or something like that; otherwise the bugs would get in there, and they had to access over our property so we worked out a 1031 property exchange.

Swent: What's that?

Tindell: Basically it's a property exchange.

Swent: Why do you call it 1031?

Tindell: That's the IRS section.

The firm that wants to buy your property buys your property and they already own the property that you want and then you exchange it. So you really don't incur a lot of property--you know--

Swent: Capital gains?

Tindell: Yes. You keep your same--I guess initial cost or whatever it is.

They started in '79. I guess we got it in '80. Then in '81 I was appointed chairman of the board and I basically only had to go into San Francisco one day a week, which was on Friday. Two days a week I stayed at the farm and two days I made calls on producers that we had done business with.

Swent: You say you stayed up at the farm. Where was this?

Tindell: Rumsey.

Swent: How did you get up there?

Tindell: Automobile.

Swent: I mean, what took you to Rumsey? Why were you there? You said you had this property up at Cazadero.

Tindell: We exchanged the Rumsey property for the Cazadero property.

Swent: Why did you choose Rumsey? Or did you have a choice in that?

Tindell: Well, my wife is pretty smart real-estate-wise and she looked through the Wall Street Journal and somebody was selling this. We basically acquired something like 1,500 acres. We have water going through a new well 300 feet deep, five acres of oranges, and about twenty-six of almonds.

Swent: The best oranges in the world.

Tindell: Yes, they're not bad.

So it was just a situation where the Rumsey area, they have all the sun you want. You have water, good water. We have Rumsey ditch going right through our property, and without a flood hazard. The soil is the highest 100 percent Storey index you could have. So I just wanted to be doing something constructive in my retirement rather than just sit in a chair and atrophy.

Swent: Did you consider other places?

Tindell: Yes. We looked up in the top end of Lake Sonoma, which is the big lake that was developing at that time behind the Dry Creek Dam out of Healdsburg west of Cloverdale, but this had so many good things that we didn't look any further. And it was sort of a situation that money wasn't that big a concern because of the exchange situation.

Swent: It had a house on it?

Tindell: Yes, we had two houses on it, a mobile home--a triple-wide--and a house.

Swent: Where was your primary home at the time?

Tindell: Well, my primary home is down here in San Rafael.

Swent: I see. You were living there.

Tindell: And my youngest boy has an obsessive-compulsive disorder which we didn't know until about '89. He was living up there with us in Rumsey in the early eighties and he was going to school in Davis in junior high. He had helped me with the almonds. Looking back at it, I would understand why, but he would carry these big irrigation pipes in the crotch of his arms rather than with his hands. That got progressively worse and we moved him

back down to San Rafael. He doesn't drive; he's never had a driver's license. He uses a lot of these baggies. He used about a hundred baggies a day--sandwich bags. Howard Hughes had a manifestation of it. There's a whole lot of manifestations.

Anyway, my wife would come up on the weekends but she would have to take him to school and he's been going to the College of Marin ever since. So that's one of those things that we didn't anticipate when we got that. And then of course my daughter moved up there with me and then I had my eldest son up there.

Swent: How many children do you have?

Tindell: Well, I had four. I've got three now. My eldest son committed suicide up there with a .3030 into his mouth. That was another thing that my wife didn't--you know, bad memories--[pause]

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Swent: So you moved up there in--

Tindell: I'd say 1980.

Swent: Was there a time when you just went up there once in a while?

Tindell: No, I was up there and Grace would be up here. Maybe I'd go down there for a few days a couple times--two, three times.

Swent: When you got the property, you settled in there to live there.

Tindell: Yes.

Citizen Meetings for the Rumsey General Plan in 1980

Swent: The reason I'm asking is that I'm trying to get a sense of your community feeling, if you had been living here and just going up there on weekends or whether you had actually lived there.

Tindell: As a matter of fact about that time, the general plan was going on in the 1980s, too, because I know I was still working down here in San Francisco and we would take the car. I would take off at four, we would drive up here and we would get up there at six. The meeting would start at seven. We would stay maybe until eleven. Then sometimes we would stay up there overnight and I would drive down the next morning with my wife or we would come back that same night.

Swent: But you were concerned enough about it that you drove all the way up there to go to those meetings.

Tindell: Oh yes, just for that. But that was in midweek and at that time I was still working five days a week down in San Francisco.

Swent: So for a while you were commuting every day from Rumsey?

Tindell: No, no. I guess I probably didn't move up there until '81 because this started in '80.

Swent: Who was operating your orchard?

Tindell: My eldest son. I don't know whether my daughter was up there at that time or not. Anyway, after I got up there, we had Archie renting in Davis so that he could go to the Davis school system because we wanted to get him into UCD, but that was not to be.

Swent: Maybe we should get the names. Your wife's name is Grace.

Tindell: Grace.

Swent: All right. What was her maiden name?

Tindell: Millich.

Swent: And your children are?

Tindell: There's Edmund Avery, Jr. There's Alan Charles--he lives with us. He's got his mechanical engineering degree. There's Archibald Richard. And there's Jacqueline Elizabeth.

Swent: And she's married, is she?

Tindell: Yes, she married a local boy up there.

Swent: What is her married name?

Tindell: Scott. She married Tim Scott. His mother is administrator of the school up there.

Swent: And the one who died is--?

Tindell: Eddie.

Swent: So you went up there to grow oranges and almonds and retire to a good life.

Tindell: Yes, I figured this was doing something. Eddie went to state college and you know, you can always look back on these things--

Swent: Oh, yes.

Tindell: I got him an inside job during the summer for a shipping firm and he didn't like to be inside. He liked the outdoors. He was an Eagle Scout. He was one of the first of the Golden Gate raptor outfits over in Marin. He puttered around school for I guess nine years. He ended up graduating in botany, which is a pretty low-paying job, so then he just sort of worked as a laborer up Capay Valley there.

Swent: But helped you with the ranch.

Tindell: Yes.

Swent: And the Rumsey General Plan was just being developed.

Tindell: Yes. That was in I would say 1980, '81.

Swent: You said you first met Ray Krauss then. He was in Sonoma County Planning?

Tindell: No, he was with Homestake at that time because they had acquired the land. I'm not quite sure when Ray went from Sonoma over to Homestake.

Swent: We don't want to jump into that quite yet, anyway. Did your concern with gravel mining come before?

Tindell: No.

The Rumsey Water Users Association

Swent: Oh, I see. You were on the Rumsey ditch, but you also had a well.

Tindell: Remember, the ditch is basically operated by the Rumsey Water Users Association.

Swent: Were you a member of that?

Tindell: Yes, everybody on the ditch is a member of the association. I guess that predates the local Yolo County Flood Control and Water Conservation District. It goes back to about 1875, I

guess. John Ceteras is real heavy in that--as a matter of fact, superintendent of it.

Swent: I didn't know whether you had gotten into other community activities.

Tindell: Well, we have a meeting once a year on that.

Swent: What was your interest in driving up there for the general plan meetings? What was the outcome of that?

Tindell: Well, I mean, if you're part of the community you should participate. Of course, economically you get caught once you get into certain channels unless you're real smart and you've got a lot of money and you're real independent. You sort of progress up the line and it's pretty hard to get out of it.

Now after World War II, I came back. I went to night school four nights out of the five and I got a bachelor's in business administration from Golden Gate University and also a master's of science in insurance. Then I was one of the charter members of the local Chartered Property and Casualty Underwriters Association, which is similar to the CPA deal in accountants and so forth. I was active in both of those, was president and regional vice president. So you appreciate the importance of politics once you get into insurance or something like that.

When I came back I was twenty-five. There was a good future in insurance. Lloyd's of London stuff was very interesting. We used to be able to insure most anything. American companies were very skittish about taking any chances on anything except until maybe the latter part of the fifties, sixties maybe.

Swent: Were you getting into the business community in Rumsey?

Tindell: There really isn't any business community up there. You have to go into Woodland. No, I'm talking about when I--

Swent: San Francisco.

Tindell: Go ahead. I guess I'm skipping around.

Swent: You were talking about going to the Rumsey general plan meetings and this was before they had passed it.

Tindell: Yes, well, this was political, and I was farming. You should participate in local activities.

"Quite an Influx of New Types" in the Community

- Swent: Were you welcomed as a newcomer in the community?
- Tindell: Yes, we didn't have any problem. I guess probably I was the largest property owner up there.
- Swent: Oh, really?
- Tindell: Yes.
- Swent: It must have caused quite a stir when you came in.
- Tindell: Yes. I mean, what was paid for it was published in the newspaper, so it wasn't any big secret; but the point is that the old timers--you make your own way with them. You don't tell them what to do. You're respectful and you try to find out. I've always had a great thirst for education. My mother was a teacher and I've got maybe, I don't know, 250 college units, so that was it.
- Swent: The locals might have been a bit skittish about you.
- Tindell: Well, see, they'd had quite an influx of new types. Ceteras and Looney, they'd only been up there about a year or two years before I'd got up there.
- Swent: And they were already well known, I'm sure.
- Tindell: Yes. I sort of fitted in with them more than I--
- Swent: Did Speirs come after you?
- Tindell: No, Speirs was up there earlier. I met Speirs in the general plan stuff. I put some input into the general plan and most of the community that were willing to put something into something, you give and take.
- Swent: What kind of input?
- Tindell: Well, we had discussions. We would have a meeting every week. Generally, I think it was Monday night or Tuesday night. This was about a four-hour meeting.
- Swent: What sort of concerns did you have? What were you trying to get them to do?

- Tindell: Well, I wasn't trying to get them to do anything. I mean, I was subchairman of the Public Health and Safety section. John was general chairman and Will Baker handled the other deal. This was a matter of discussing things and figuring out what we wanted. We had at that time pretty good cooperation from our local supervisor, Twyla Thompson.
- Swent: What sort of things did you want to get into the plan? What were the issues?
- Tindell: This was actually my first exposure to a general plan, although down in San Rafael I'd had a copy of it and had been a homeowner's association president before going up to Rumsey; so I'd had a little bit of exposure.
- Swent: That's good political experience if you're president of a homeowner's association.
- Tindell: Well, we only met once or twice a year maybe, something like that. We were the first subdivision in San Rafael. We were in the county. We're surrounded by the city of San Rafael, so we do have some perks that way, and we're wooded. We look down the bay and we didn't have too many problems. The city of San Rafael had more problems than we did. We went by county ordinance. Basically, Thompson had a format of a general plan and we were just going over that.
- Swent: Was the Williamson Act an issue?
- Tindell: No. Williamson Act was already in force.
- Swent: Were you trying to get any land changed?
- Tindell: No. We're so far out and the transportation is poor that we're pretty much left alone, you know, as long as you keep your nose clean. So that wasn't any problem; it was just a matter of--I guess the legislature had mandated that you'd have a general plan and I guess this was the first time they'd had a general plan for Capay Valley. I think you have to review it every five years.
- Swent: And you were in charge of the health and safety. What did that cover?
- Tindell: Oh, things that would affect public health like crop dusting, spraying. That area, I don't know your political connections, but knowing Berkeley, I'm one of the few Republicans in the area.

Swent: I'm a Republican. I'm not from Berkeley; I'm from South Dakota. [laughs]

Tindell: So the thing is, is that, you know, some of them had some pretty liberal ideas. It's a situation of some moderation somewhere along the line. A lot of them had been born and bred up there, and I guess it was just a situation from my experience of different things. We had insured a lot of counties for excess liability and compensation, so I had had some exposure that way. Being head of the department, I would see any claims that were over a significant amount so you do acquire a little bit of knowledge.

Ray Krauss of Homestake Attends Some General Plan Meetings

Swent: I think we'd better move on to the Homestake connection then. Do you recall when you first heard about this mine coming in?

Tindell: Well, Ray Krauss attended one of our meetings towards the end, and at that time I guess we got into land use. Homestake had lease options on a lot of BLM [Bureau of Land Management] land. I'm not sure whether that's the right term, but anyway I think they ended up with about 45,000 acres or something like that, and some of that they purchased outright. Then they had some exchanges with BLM where they would get the land they wanted and they would buy other land that BLM wanted and so forth and so on. That's Ray's first exposure. I guess he was at three or four of our meetings.

Swent: The general plan meetings.

Tindell: Yes. And he was satisfied. I mean, we didn't block out mining. They had some special zoning deals--sand and gravel overlays, and all that stuff--which I guess a lot of us didn't really understand the significance of. Ray was satisfied with the provisions that were in the general plan that would not inhibit their operations. He was, after all, representing a property owner in the Capay Valley and it was perfectly legitimate. He handled himself quite well, so that was it.

Swent: So he was just there as a visitor?

Tindell: Yes. He just wanted to be sure that nothing went in there that would inhibit their operations, I imagine.

Swent: Were you aware at that time that they were trying to put a dam in?

Tindell: Probably not, because the dam didn't go in until '84 or '85.

Swent: I think it was the dam that really impacted Yolo County, wasn't it?

Tindell: Actually, there's several things that impacted Yolo County. I have an order here that I'll give you a copy of from our planning commission where we asked Napa County, who was a primary--I forget exactly the term.

Swent: Lead agency.

Tindell: Nice-sounding word, but doesn't mean a thing. This is a letter from May 1, 1983, to Corley, who was the chairman of the Napa deal. This is from our chairman of our planning commission.

Swent: Were you on the planning commission?

Tindell: No, the planning commission sent all the comments to Napa County as of May 25 and stated that the EIR [Environmental Impact Report] is inadequate, and that before certifying the EIR, we request a monitoring program be placed and precised. And that includes who is going to do it, what it contains, and that it has the acceptance of all three counties. Also the standards, who pays, and baseline data.

EDAC [Environmental Data Advisory Committee]: A Rising Crescendo of Dismay

Tindell: Napa County just ignored it and the next week they certified the EIR. Prior to that time there was a rising crescendo of dismay at how the so-called committee was--

Swent: There was an EDAC committee.

Tindell: Yes, EDAC--Environmental Data Advisory Committee.

Swent: Environmental Data Advisory Committee. You weren't satisfied with that.

Tindell: Well, our commissioner, who was Twyla Thompson and in whose district it was, I guess for the first twelve meetings, she only

attended three until we got on the thing and got her doing it. They had hired--I forget his name right now.

Swent: Was this because she just didn't go or because she wasn't advised of meetings?

Tindell: Oh, no, she knew about it. She's a great believer in everything that the mining industry would tell her. James Goodfellow, he was more or less the administrator of that. See, Yolo County was the lead agency for environmental matters and that was after the EIR was approved by Napa. We went over to Napa, about five of us: Will Baker, the Ceterases, Looney, Grace and I--I guess that basically is it. As a matter of fact, the first meeting, [Jack] Thompson--who's now president--came up and thanked me for my position.

Swent: This was one of the Napa County meetings?

Tindell: Yes, the first Napa County public meeting on the thing. Basically my position as a Republican was, as long as they complied with all the laws and the environmental concerns, I didn't have any objections to--I mean, property rights. A lot of Democrats were all in favor of taking over by eminent domain or something. I don't think they used eminent domain, but they wanted to basically cut it off at the pass.

Swent: That's very interesting. I had not thought of this as an issue of party politics at all.

Tindell: It probably isn't, but that's just my philosophy. You could say that because of the property I have, I'm going to be partial that way, but I started all this out with the savings that I had as a combat pilot in the Air Force and I came back with about \$12,000 or something like that. From that, with an inheritance of maybe eight and a half percent from Cazadero from my father, that's what I've done. The point is, is that Gephardt and all the boys want to turn around and spread it out among everybody so that we're everybody equal regardless of how hard you work or do anything about something.

Swent: That's your point of view.

Tindell: He basically came up and said thank you for the position because the other guys--Will Baker's pretty much a liberal type. As a matter of fact, when Jack was appointed to take over the South American deal and move out of Homestake here as manager of whatever, they had a party there. We went over and I went up and congratulated him. Little did I know that he would end up

being president. Humphrey brought him in. Well, I don't know whether he was with Newmont, but--

Swent: He was with Newmont.

Tindell: He was in a western Washington plant up there.

Swent: Where did the idea of the technical review panel get into the picture? How did that come about?

Tindell: Well, I think we had enough concerns about how this EDAC was operating. See, Napa County basically controlled that and we were supposedly at a meeting in Winters, and between the poor answers that BLM had and Napa--Napa sort of played it smart. They weren't too heavily participating in this rhetoric. So they had scheduled another meeting. Then the Napa people called it off and they just sort of crammed it down our throat.

Swent: I'm a little confused. You're implying that people were not giving you answers that were satisfactory, but what were your questions?

Tindell: Well, this goes back a few years, you know. Twelve. Some of the questions involved the tailing ponds over there, killing off wildlife, earthquake concerns.

Swent: You delayed acceptance of the EIR for quite a while.

Tindell: We did?

Swent: Didn't you?

Tindell: No. Because the EIR was accepted there in, what, '73? What's the date of that? [indicates a document]

Swent: This is '83. But didn't Yolo County hold it up for a while?

Tindell: Yes, but not because of the EIR. EIR went through a week after that. Is that May?

Swent: Yes.

Tindell: Then it went through about June 7, something like that, in Napa because they are lead agency. But then Yolo County was considered to be the sub-lead agency for environmental concerns and that is how they came out with these deals here.

Homestake's Flawed Process to Select an Environmental Review Firm ##

Tindell: My recollection is that they had listed about eight or ten firms recommended either by Napa, Lake, or Yolo County, and basically these are consulting firms that would do the environmental review, environmental monitoring plan. My recollection also is that only one firm was willing to do it; I would speculate that the influence of mining industry had some bearing on it. Brown and Caldwell was that firm. Now, see, this is November in '83. The EIR was approved in June of '83, so it wasn't that much of a delay from that standpoint.

Swent: You're implying that the mining people pressured companies not to even bid for this job?

Tindell: Well, I know that there are little blacklists in various industries. I don't know whether that applies here, but it's just my guess that these other firms, being prudent and maybe wanting to do some business with Homestake, or knowing how Homestake is a leader in California mining industry, didn't want to get into a situation of reporting on something that they might have to live to regret later on. That's just speculation. But it happens in other industries and I don't know that the mining industry is so Simon-pure that it wouldn't happen with them. There is other evidence of something in other things that that happens in.

So anyway, that was that. EDAC, we had some meetings and so forth and so on. Here's a second report that was insisted upon by Yolo County. It came out in February '84.

Swent: This report would not have been made if your group had not insisted on it?

Tindell: Well, I wouldn't say our group, but we had a pretty intelligent planning commission in there. We had an architect.

Swent: This is your county.

Tindell: Our county, yes. We had an architect in there that's an old timer. See, I used to handle a lot of errors and omissions, which is another term for malpractice. Talking about malpractice, you're talking about individuals; talking about errors and omissions, you're talking about property, basically, and so forth and so on.

Swent: Who was this architect? What was his name?

Tindell: Turner, I think it was. Take a look at the back of that. It would probably be in the back part of that.

Swent: Harold Turner?

Tindell: Yes. Let's see who were the others. Gary Stone was PG&E.

Swent: You had good commissioners?

Tindell: Well, let's say I wouldn't put all of them in that category. [laughs] But Turner was a pretty strong person; he had been a chairman. And Lowry is the son of a former California assemblyman for twenty-eight years or something like that.

Swent: I don't see Lowry listed here.

Tindell: Here. He's the chairman.

Swent: Oh, he's the one who was chairman. I see. Okay.

Tindell: They talk about in the summary here: "This is the second report. [This] represents the findings and review of baseline data, environmental quality standards, and standards reinforcement for Homestake Mining. The report deals with the three as they relate to project actions and effects in Yolo County. The report is organized in three sections." Well, Lake County had been, I guess, the poorest county in the State of California, second maybe to Alpine. And Napa, they had no exposure, really, environmentally, and they had 80 percent of the taxes and all that stuff. So we did have this.

Inadequate Sampling Yields Poor Data

Tindell: Even in this, and this is the second deal here, they had some poor deals where they had maybe an analysis of the minnows or roaches, whatever they were called. They took two samples. And that is just horribly, statistically inadequate. How they felt that was sufficient and how Homestake allowed that to happen-- but I don't doubt that these mining firms, they do expect to run into some little problems. There's such a mass of data that a little problem here and there slips by, and so forth and so on.

Swent: Who was taking the samples?

Tindell: Some firm down in Berkeley. And of course, they all--

Swent: So you felt that you were not getting adequate data.

Tindell: Bob Speirs was very heavy in this because he had retired as head of a laboratory for the government--FDA [Federal Drug Administration]--down in Little Rock. Something like that. His wife, who he met overseas in England, she and he have written a lot. He has about a seven-page C.V. [Curriculum Vitae] and so forth and so on. He had done a lot of that, and I guess to make a long story short, they crammed that thing through. We had some meetings and this, I think, is very good. [leafing through papers] You know, most of us are naive little children compared to the expertise that the mining industry or probably any industry has. I'm not trying to pick on mining being terribly bad, but look at the tobacco industry.

But Bob attended this discussion as just one person and they had four of them. You never should go into something like this without having somebody else on your side to confirm it. I don't have a copy of this, but you could photostat it and let me have it back.

Insistence on a Monitoring Program in Place and Precised

Swent: What is this?

Tindell: You take a look at that thing. One of the things we wanted was a monitoring program precised and so forth and so on.

Swent: [reading] "Before certifying the EIR, we request the monitoring program being in place and precised." Okay.

Tindell: Okay. This monitoring program, they were scheduled to have a board of supervisors meeting, and I guess Bob got it maybe a few days before. They kept stalling the thing around, and this is just the games people play. And this is the summary of discussions concerning UCD [University of California at Davis] and Homestake contracts which took place prior to and during the board of supervisors meeting on October 23, 1984. And this is ten pages.

Swent: And this is just Speirs' report of it.

Tindell: Yes, his recollections and so forth and so on. It's well done. I haven't read it for years, but you've got to realize now that our planning commissioner in Yolo County, Ben Hulse, worked with Ray Krauss in the Sonoma County deal. Also, Ben Humes was the

associate county counsel and he had worked with Hulse up in Nevada County because I used to insure Nevada County for excess. They had left up there and came down to Yolo County. That was the only thing--

Swent: This is a wonderful document. May I duplicate this?

Tindell: Yes, sure. I would like to have it back.

Swent: I will give it back. This is a wonderful thing to include because this is the sort of thing--this is what oral history is all about. These kinds of things and what you're saying, your impressions, don't ever get in the newspapers, as you know. We realize that you're just giving personal opinions and personal impressions, but they are very valuable; and here this is, a recollection which is an extremely valuable thing to add to the newspaper record.

Tindell: Yes, that's right.

Swent: We all know the newspapers don't tell it all.

Tindell: Well, the real problem, like I say, Homestake is a better than average mining company, although I wouldn't consider that they would get a grade A. But I'd certainly give them a grade B. The real problem is in the local agency, in my view.

Serving on the Technical Review Panel, 1985 to 1992

Swent: Which agency is that?

Tindell: Any local agency--the mining companies are good about keeping the control in the local agencies. I was appointed to the technical review panel when it got started, over the objection of our most senior supervisor. I suspect that somewhere along the line--I can't understand why somebody would take such a strong position, but whether this is in campaign finances and so forth and so on, everybody else does it and I don't understand why they wouldn't do it. Of course, the people are so basically disorganized in their participation as far as money goes--and we don't get any tax write-offs for the expenses that we incur, whereas industry does. So she finally got me out of there after five years and--[knock on door, pause]

Swent: We've had a brief interruption here for a visitor and we were talking about instream mining up in Yolo County, which isn't

really directly connected with McLaughlin, but it's all part of the picture, isn't it?

Tindell: And then subsequent to my service on the--

Swent: So are you not on the technical review panel any more?

Tindell: Not I. John Ceteras is.

Swent: But you were for many years.

Tindell: Yes, from the inception--the inception was about 1985; 1986 we started--to about 1991, 1992 maybe. And at that time, more or less at the instigation of one of the big old-time supervisors and also there might have been a little influence from the principal, they had to review the efficiency of it.

Initially, the supervisor from our area recommended me because Bob Speirs didn't want to do it. I guess he knew, also, that he was going over to Japan. So I was recommended and Betsy Marchand recommended John Ceteras. Betsy is not even in the district. She's down in Davis, her district. Clark, the chairman, said, "Well, let's have two public members on there. And it's better to have an odd number of people, too." It was a very imposing list of people outside of the public members, but John and I both had a great interest in it, attended practically all the meetings. I don't know what John's educational background is, but the point is that I had had organic chemistry, inorganic chemistry, and a fair amount of other stuff. So anyway, we got on there.

UC Davis being a land grant college, I think they get some brownie points or some recognition for serving on something like this community-based deal. And it was very well done. In other words, Marvin Goldman, who is the head of the US Commission investigating the Chernobyl disaster in Russia, was the initial chairman and he served for a couple of years. We've had one of the avian specialists who was up there on the Valdez spill, Mark Frye, I think it is, has been serving on it. Turid Reid was involved on Putah Creek water problems and has a Ph.D. on water toxicology, was in there also. Richard Burau, of the Land, Sea, and Air department at UC Davis, he was in charge of the Kesterson [Reservoir] selenium problem--he was on it. He is retired now.

Swent: A very high-powered group.

Tindell: Yes, it was. Very impressive. And I think this is the way you have to go, with some members of the public in on the thing that

know something about it, because these people are all basically tenured and they're away from as much influence as possible. They will have some influence, and of course Homestake has a UC professor on its directorship as well as a Stanford professor as a director, so, you know, they're not missing any bets, but I don't know how active that is.

Swent: What exactly did you do? How often did you meet and what did you do at your meetings?

Tindell: Okay. Homestake would make quarterly reports.

Swent: This is on air, water--

Tindell: Basically, the air was limited to Lake County because that's where the processing was done and presumably that was done correctly, although in talking to Bob Speirs--he estimated something like 350 pounds a year. If you do talk to him, you might get his impressions whether the mercury that went into the atmosphere was adequately monitored and so forth and so on. I'm not sure.

John being pretty busy, I would probably work with John and then get together with Bob Speirs on our reports. The annual report would come in, say, about August, something like that and then we would have meetings after that generally once a month until we got our final report together. And each of the people had their own reports--although from a public standpoint, since there were two of us, John and I collaborated and put in one report.

Swent: How many of you were there on this technical review panel?

Tindell: I believe there was nine.

Swent: And you were appointed by--

Tindell: The board of supervisors of Yolo County. And of course Homestake was very jealous that we didn't get any information or didn't go out of their way to let us get any information that was not involved with Yolo County. But I don't fault them on that; I mean, that's just normal and why are they looking for more problems?

Phil Barnes was Ray's associate in that environmental deal and I know Phil and I got in a little discussion in connection with water that they were taking out of Davis Creek. But anyway, they turned around and took both John and I off the

committee, and appointed Ada Mehrhof, who was a Homestake sympathizer.

Swent: She was a Homestake sympathizer?

Tindell: Well, yes, she was in the Sierra Club. I think she served two meetings, and then after the second meeting she resigned. Then John Ceteras was reappointed. I probably have too much fighter pilot instinct in me and John is a good middle of the road politician--well, not politician, but I mean he gets along with everybody.

Monitoring the State Mining and Geology Board and SMARA

Tindell: After that, then I spent--since I guess about 1991--monitoring the state Mining and Geology Board meetings and I was on the blue ribbon committee for SMARA [Surface Mining and Reclamation Act].

Swent: So you were appointed to that by the legislature?

Tindell: No, by the Department of Conservation.

Swent: This blue ribbon committee is a citizen group?

Tindell: No. The end result, there was about thirty-five people on it. We would have a meeting and there's two of us that represented conservation or environmental concerns: a professor down at San Luis Obispo and myself. The rest of them: all the gravel mining associations--four of them; California Mining Association; all the people involved with mining. There were a few government agencies in there and Jeff Shilido, who was Byron Sher's legislative assistant--we were overwhelmed. You know, Syar was in on the thing. He has gravel mining operations at Lake Herman, Solano County, Yolo County, Napa County--he bought out Basalt [Company]--and Russian River. In the area, he's bigger than Teichert [Aggregates], but Teichert is bigger over all.

Swent: Do you know his first name?

Tindell: Jim.

Swent: Jim Syar.

Tindell: He's a nice guy personally.

- Swent: Sure. So that's what you're still involved in now?
- Tindell: Well, with this prostate problem I haven't been--although I still get the mailings from mining, geology. I probably am missing out something.
- Swent: I'm not sure we covered the McLaughlin--
- Tindell: Yes, in the McLaughlin deal, here, this is a little report here. [takes report out] We started in 1985. I guess our first report was the second quarter of '85 and, pardon my jumping around here, but--this deal from Dr. Speirs? Okay, that has to do with discussions between Speirs, the Yolo County legal staff, the head of the planning department, and I think it's Richard Goldman, is it?
- Swent: Charles Goldman.
- Tindell: Charles Goldman has got a pretty good reputation, but he's not infallible. He's the one that had the Lake Tahoe job. And of course Ray Krauss got together with Goldman and sort of set him up. There's a saying: "Where the money comes from, you have to watch out," and so forth and so on. Anyway, if you take a look at the original planning commission letter back in late May of '83, we emphasized about baseline data.

A Change in Analytical Labs "Fouled up the Data"

- Tindell: We started out here with this report. [takes out report] I would probably like to have a copy of this too. This started out with the primary analysis being done by an outfit down there in West Sacramento. Ruckelshouse, who was head of EPA, was on their board of directors. Anyway, in mid-1987 Homestake arbitrarily cut them out and brought in an outfit from Santa Rosa; and their firm now I think is NET, but when they were first brought in, they had a different name, a sort of a regional name. And I had talked to the old firm--

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- Tindell: --for quite a while, maybe twenty years, fifteen, something like that. I was somewhat aware of what's going on over in Sonoma County, and they flood occasionally because of the Santa Rosa flooding and they flood downstream, Gurneville, Forestville, and so forth. There's no question in my mind that Ray had had plenty of previous dealings with this outfit over there in Santa

Rosa, this lab. I guess there wasn't anything. Homestake says that there wasn't anything saying that they couldn't do that. But you know it sort of fouled up the data process.

Swent: When you change firms, you get different--

Tindell: Yes. We were going on for a couple of years, maybe over a year, trying to get a correlation between what we had and this new outfit. Of course in the course of all this, Homestake had had --not a runoff, but an analysis among four different firms: that firm, the original firm, I think the state, and then this analytical lab. I don't know whether this is crooked, but it's factual. As far as Homestake [was concerned], I don't think that this outfit had any material affect on anything that went on in the McLaughlin project.

But the point is, is that they were considered one of the normal deals. And this is a court case here where anlab [analytical] lab employees deliberately overloaded a water-flea biopsy bio-assay test, and we got a judgement against them--and admitted fault. This can happen and you sort of assume that these guys are giving you accurate records and so forth and so on.

Swent: This is filed March, 1996. This is very recent.

Tindell: Yes, yes. Well, it takes a lot of time to uncover these things. You know [Crooks], that was the regional water board, got replaced. But he was the director of the regional water board and there was a lot of concerns about some of his decisions. I'm not anybody that can judge, but this is far from a perfect world.

Swent: I've noticed.

This is from something called "News and Review". What is that?

Tindell: I guess it's a magazine. [looks at it] Bob Speirs could tell you about that. I got that from Bob.

Swent: And this other one is a legal document called a penalty slip. Do you want this back?

Tindell: No, I have an extra copy.

Swent: And this?

Tindell: No, I've got an extra copy of that too.

But anyway, they changed the lab there and they got Goldman to set up a lab. Now, Homestake's overall philosophy is that they would not use a lab that is not certified. Now Goldman's lab was not certified, but it's UCD and you know, you can be right as rain, but unless it's significant--.

The Technical Review Panel Was Not Given Data for Two Years

Tindell: But as far as the technical review panel, we did not get any data from them from the time that that was changed up until about 1990. Basically, this has to do with mercury being bio-accumulated in the reservoir.

The regional board, of which [Crooks] was executive director, set up requirements for the inlet into Davis Creek Reservoir, which was DC5.

Swent: What does that mean?

Tindell: Davis Creek. That's the inlet in there, and the outlet, DC6. But nothing to do with testing in the reservoir. Apparently, I guess, Krauss argued successfully that this is a fresh water reservoir, there's no criteria or no precedent for that, and it's entirely blocked off from the public because it has a cyclone fence around it. So there wasn't any fish advisory. Actually, we got up to one fish that had 8.48 parts per million of mercury in it. And you know the National Academy of Sciences standard is 0.5 parts per million, which is adhered to by practically every other civilized country in the world except the United States. The United States has a one-part-per-million standard. The idea on that is to protect the tuna industry, because tuna comes in at 0.85. So that explanation is logical.

Swent: So you took a fish from the reservoir and found it had eight?

Tindell: We didn't. Goldman's monitoring team [did]. Yes, Slotten.

Swent: Darryl Slotten.

Tindell: Yes, yes. That was the highest we had and probably that was a real old [lugger]. And you don't want to eat any swordfish. I mean, the more predatory the animal, the more chance to bio-accumulate mercury. So, anyway, that's where we are.

Swent: I'm sensing that you felt you didn't get really adequate data.

Tindell: Well, I didn't. This shouldn't happen. What I'm doing is I can see how this could happen, but of course if we hadn't changed the labs we wouldn't have that problem. On the other hand, I think Goldman wanted to set up a lab with Darryl Slotten and Slotten was working on his Ph.D. and so forth and so on. Life is a matter of happy compromises.

Swent: Did you have any leverage? Here you are, over two years receiving no data; you're supposed to be reviewing data but you don't receive any.

Tindell: Yes, well, "They're working on it."

Local Agencies Need State Help Or It is "Like Spitting in the Ocean"

Swent: You had no recourse.

Tindell: No. Unless you have somebody that's real close to the supervisor, and at that point our representation was--in our district where their mine was--was with somebody that has a gravel mining operation on Cache Creek. So you know, it's sort of like spitting in the ocean. But why I'm bringing that up basically is to show what can happen and what does happen, and that the local agency needs some standards, probably from the state. And I'm not a great believer in a lot of higher government, but the point is is that where it does effect environmental problems and so forth and so on. You have to consider what's in the public good.

Swent: You need alert citizens, don't you?

Tindell: Well, you need alert people with some authority. You can have a lot of alert citizens, but you know, they're the masses out there [laughs] and they may not be able to accomplish anything.

Swent: Unless they get together.

Tindell: Yes, well--so, anyway, that's about what that amounts to.

Swent: Well, did you feel it was worth all the work you put into it?

Tindell: Oh, yes, yes.

Swent: You spent a lot of time and energy. Was it worth it?

Tindell: Well, you know, it's just like everything else: if you get into it, you want to do what you can. I think that the [California Division of] Mines and Geology over there is just terribly dominated by the industry. As a matter of fact, a former executive director resigned to become a vice president, I think, of the California Mining Association. Denise Jones.

Swent: By "Mines and Geology" you meant the state division.

Tindell: Which is a part of the Department of Conservation. That, I guess, is pretty much subject to political direction from above.

Swent: Things all get tied together, don't they? [paper shuffling]

Tindell: I don't know whether you have that or not, but it doesn't mean anything. I'm not going to keep it so I thought that you might [want it].

Swent: No, I don't have any of these things.

Tindell: Yes, you can look at it if you like.

Swent: This is the 1987 environmental monitoring program prepared by Napa County. I would be very glad to have that. Well, you're going home lighter than you came, but I'm very glad for this.

Tindell: I haven't even looked at this and I don't know whether you want to. [pulls papers out of envelope]

Swent: What is it?

Tindell: This is some of their technical stuff by D'Appolonia for Homestake. I would just throw it away. You can throw it away if you want.

Swent: What did you think of their work?

Tindell: Well, you know, this is in the early phases of things, and I guess they were all right.

Comments on Summitville, the General Mining Act, and Politics

Tindell: One of the things that I would like to comment on is Parker, Stepan, and Robertson, which is a firm of mining technical expertise out of, I think, Boulder, Colorado. They're out of

Colorado but Homestake used them here in Homestake, and I didn't have any problems with that. But are you aware of Summitville?

Swent: Oh, yes.

Tindell: Parker, Steppan, and Robertson was involved with Summitville and they gave the diametrically opposite advice of what they should have done. In other words, with that leaking and all that stuff--I got the report from the Colorado Commission, about seventy pages, and they just spelled it right out there. But politics got into that thing, too. I guess you just can't take politics out of that.

Swent: That was a horrible mess.

Tindell: Yes. They had a big old loan with Bank of America in that thing and they were trying to force this thing through before the weather closed them in. I guess they had payments.

You know this Mining Act of 1872 is a horrible situation and Homestake, despite their good marks maybe mostly on this, they just pay for these buses to take these workers out to these things and create a lot of confusion, so they're not going to change that.

Swent: Where?

Tindell: Well, 1872 is this mining act.

Swent: But where did they take busloads of workers? I'm not sure what you're saying.

Tindell: I would say up in Montana. I don't have the things right here, but it's documented. What's the outfit, Mining Exchange out of Washington, D.C.? I belonged to that, too.

Swent: There's a Mining Congress. There used to be a mining congress. Is that it?

Tindell: Environmental people?

Swent: No.

Tindell: Yes. This is environmentally concerned. They were instrumental in getting Clinton to block that mine right off on the outskirts of Yellowstone.

Swent: But what you said, Homestake gets busloads of workers to go to--

Tindell: Yes. To go and give them this whole deal about jobs and all that stuff: "We don't want to have any more regulations" and so forth and so on. If you give me your address, I'll dig up one of these things.

Swent: Sure. You have it.

Tindell: It's what I read from that. And of course, basically all the mountain states are very pro-mining. Even the Democrats in Nevada. Two years ago, both Democratic senators voted against repealing that.

I've been going up to Idaho for about forty-two years for the beginning of fishing season. I used to have Idaho Power insurance. One of the guys on our fishing trips was legislative advocate for the mining industry in the Idaho deal and was with Asarco.

Swent: What's his name?

Tindell: Well, I don't want to mention that.

Swent: Okay.

Tindell: He's dead now, but his son is still active in California.

[takes out papers] This is sort of an interesting commentary. This is March 16 of 1997.

Swent: What you were saying about your Idaho fishing friend, is this connected with that?

Tindell: Yes, this is a measure up there in Idaho. It gives both sides. Here's this smooth mining representative saying that there's no problem, there's no acid mine drainage problems. And basically, this is the guy that's saying you have to do something before the problem exists and that's what they're voting on. This other guy came out of Kellogg. And Kellogg is just horribly lead, and I guess they've lost some forest up there. I haven't seen it. I go in the eastern part.

Swent: There used to be smelters there that damaged everything.

Tindell: As a matter of fact, let's see, Lawrence County [South Dakota] has just passed something to protect the Sweetwater Creek; that's an environmental positive step.

Swent: Well, there's been a big change in the last fifty or a hundred years. People didn't used to think about those things at all.

Tindell: But I mean it's just happening now. So I guess, basically, that's about all the paperwork I can give you.

Swent: Okay. Was there anything else you would like to say for the record? This is your chance to speak your piece. [laughs] This is the Bay Area Air Quality Management summary--

Tindell: That was held up in Lake County, as I recall.

Swent: Permit application. July, 1984. That was just the application.

Tindell: You can throw it away if you want. Suit yourself.

Swent: All right. Dust and all.

Tindell: Yes. Sorry.

Swent: [laughs] That's okay.

Lead Agencies Are Horribly Naive

Tindell: Basically, I really haven't thought about what the answer is, but as I see it, lead agencies, which are probably the logical source to handle these things so as you don't have an overbearing bureaucracy, they're horribly naive about technical matters, especially involving mining, and rely pretty much on what they're told. There's a fair amount of turnover in these departments, and of course, if a supervisor doesn't like a planning director, they can just get rid of them.

On our off-channel mining on Cache Creek, [that] is what our CAO [Chief Administrative Officer] did to Steve Jenkins, who came in about two years ago, maybe three years ago, after the previous planning director was basically dismissed. He had meetings. I guess we spent maybe 100 hours, every Thursday from about eleven to two. We had maybe ten miners on this side and ten public members--Speirs and myself and several other old-timers--there. We had sort of a give and take. Then it was just from the supervisor's standpoint just a brainwashing deal. Then when we got down to the nitty gritty on this other deal, they hired a contract planner outside, and the CAO said, "Well, Jenkins, you're not going to be involved. She's going to report directly to me."

Swent: CAO? What is that?

Tindell: Chief Administrative Officer of the county. He's the top county official. Appointed.

So the thing is, is that there is a need for technical assistance, I would say, on the state level, and some rules and regulations that the local agencies don't get around.

Swent: It's probably just a general problem now with so many technical things getting so extremely complicated.

Tindell: One of the problems, too, is that a lot of these agencies--you know, environmental firms and so forth--they take an advocacy position rather than look at it from a neutral standpoint. They know where their money is coming from and they know where their future--I mean, if one of those firms was environmentally biased, and so forth and so on, they wouldn't get any business. They would go out of business. So the point is that it's sort of an advocacy situation and legal confrontation. I don't think that's the way to do it.

Swent: You get the technical experts in the picture and it's hard to know.

Tindell: Yes, and you know, experts, I guess, are from fifty miles away, and you can get both sides of the fence. But anyway, that's where we are. Did we cover most everything?

Swent: Well, I think we have, Avery, if you feel that you've said what you wanted to say. Of course you can add something later if you want to when you get the transcript. You can always add a few comments if you need to, but I think we covered all of the essentials.

Tindell: Maybe somewhat disjointed, jumping from one thing to another.

Swent: Conversations always are. You can't help that. That's not a problem.

Ray Krauss Speaks to the Yolo Board of Supervisors: Out of Order

Tindell: Oh. [gets out paper] This is Ray Krauss's comments to our board of supervisors. I really think that's out of order. In other words, he goes over and while he says he's not advocating anything, he's saying, in effect, what a great job the supervisors have done. Now I may be somewhat prejudiced about this, but the planning commission did split two to two--didn't

pass it. The way it was done was, "That's it; we're going to vote on it."

Swent: This is also recent. This is July, 1996.

Tindell: Oh, yes. This is when our ordinance was finally passed.

Swent: Your gravel business.

Tindell: But I mean if he's voting on it, I don't think he ought to participate in something before a local agency. [papers shuffle]

Swent: Okay, well, I think--

Tindell: I've run you out of tape?

Swent: The tape is just about over and that's good timing. Thank you very much, Avery.

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John Turney

McLAUGHLIN METALLURGIST: PIONEERING AUTOCLAVING FOR GOLD

Interviews Conducted by
Eleanor Swent
in 1994 and 1995

Since 1954 the Regional Oral History Office has been interviewing leading participants in or well-placed witnesses to major events in the development of Northern California, the West, and the Nation. Oral history is a method of collecting historical information through tape-recorded interviews between a narrator with firsthand knowledge of historically significant events and a well-informed interviewer, with the goal of preserving substantive additions to the historical record. The tape recording is transcribed, lightly edited for continuity and clarity, and reviewed by the interviewee. The corrected manuscript is indexed, bound with photographs and illustrative materials, and placed in The Bancroft Library at the University of California, Berkeley, and in other research collections for scholarly use. Because it is primary material, oral history is not intended to present the final, verified, or complete narrative of events. It is a spoken account, offered by the interviewee in response to questioning, and as such it is reflective, partisan, deeply involved, and irreplaceable.

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INTERVIEW HISTORY--John Turney

John Turney was the Homestake metallurgist who worked on development of the acclaimed process to treat the McLaughlin Mine ore. He was born in Australia, son of a graduate of the Bendigo School of Mines, whose own father and grandfather had been associated with Australian gold mining. As of this writing, John is back in Australia as General Manager, Engineering and Development, for Homestake Gold of Australia, in Perth. At the time of the interviews, he had moved to Canada with Homestake's Eskay Creek project; we scheduled interviews in the Homestake offices in San Francisco when he was in town on other matters. The first interview was on July 21, 1994, and the second more than a year later, on September 30, 1995.

In the interviews, he tells of coming to America to do graduate work at the Colorado School of Mines, his enjoyment of mountain hiking, and meeting and then marrying Vicki Lee, a physicist and fellow hiker. He worked for AMAX in developing a new water treatment plant and found that the work he liked best was hands-on project engineering. In January 1981, he began work with Homestake's metallurgical research group in Golden, Colorado. The McLaughlin ore body had been delineated and preliminary drilling had been done. He says,

I'd say they were at the point where they said, 'Well, we might have a problem here, because a lot of this stuff is refractory.'...traditionally, what everybody did, if you had a refractory sulfide, you'd put it in a roaster, you'd heat it up, and break down the sulfide with heat, which would then evolve sulfur dioxide, which goes up a stack.

Concern for air quality, however, now prohibited this. An alternative option was to treat the sulfides under pressure with oxygen, which had been done successfully in a laboratory.

I think people knew you could do it in a reactor, but whether it was practical, everybody would have said no...Because the equipment wasn't available to do it. That's really what part of the real story of McLaughlin is about.

Turney tells this "real story" of doing research, working without FAX or computer help. He traveled to South Africa, Canada, and Europe in search of ideas, materials, and equipment. He was involved in the crucial decision not to build a pilot plant first.

You'd be better off spending extra money in the full-scale plant, put some extra dollars in there, put the extra millions into the plant, so that you could insure that it would work, rather than spend it on the pilot plant....

What we then ended up having to do was, the sizing of the letdown system and the autoclave, basically the thermodynamics,

the heats of reaction and that, we did out of the back of the book. We basically pulled out a thermodynamics book and worked out how much heat would be generated, and the calculations that we did based on that theory proved to be fairly close to our numbers that we measured two or three years after startup, where we actually physically measured temperature in and out, worked out heats of reaction, and came up with parameters.

Those numbers now have become standard. The industry is using that as a standard number to design these things. We didn't have that. We had to work it out....What we patented was essentially the process, the linking together of pressure oxidation with gold recovery, and the conditions under which you could do that. So it's really the concept; that was what was patented. No physical hardware was ever patented.

Turney's interview is valuable for its clear explanation of the process of technological transfer, from theory to operation. He discusses not only the technical problems in continuous treatment of an exothermic slurry and modifying the plant to meet changing conditions; but also the challenges of training staff and of meeting concerns of stockholders and neighbors. Others of his associates interviewed in this series have paid tribute to his superb talents as a teacher, trainer, and manager. He clearly loves what he does for a living, just as he loves Rocky Mountain hiking and sailplaning in Lake County, California.

The tapes of the interview were transcribed in the Regional Oral History Office and the lightly edited transcript was sent to Turney for review in August 1996. He reviewed it thoroughly and returned it in June 1998 with very few changes for clarification of details, all clearly marked. The manuscript was corrected and indexed at our office. The tapes are deposited in The Bancroft Library and are available for study.

The John Turney interview is one of more than forty interviews which were conducted by the Regional Oral History Office from 1993-1999 in order to document the development of the McLaughlin gold mine in the Knoxville District of Lake, Napa, and Yolo Counties, California, from 1978-1999, as part of the ongoing oral history series devoted to Western Mining in the Twentieth Century. The Regional Oral History Office was established in 1954 to record the lives of persons who have contributed significantly to the history of California and the West. The office is a division of The Bancroft Library and is under the direction of Willa K. Baum.

Eleanor Swent
Project Director, Research Interviewer/Editor

November 1999
Regional Oral History Office
The Bancroft Library
University of California, Berkeley

Regional Oral History Office
Room 486 The Bancroft Library

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BIOGRAPHICAL INFORMATION

(Please write clearly. Use black ink.)

Your full name JOHN RUSSELL TURNER

Date of birth 3RD FEB. 1951 Birthplace MT. ISA, QUEENSLAND, AUSTRALIA

Father's full name ROBERT JOHN TURNER

Occupation METALLURGIST, Retired Birthplace BENDIGO, VICTORIA, AUSTRALIA

Mother's full name LILA JOAN TURNER

Occupation HOUSEWIFE Birthplace BENDIGO, VICTORIA, AUSTRALIA

Your spouse VICKI LEE TURNER

Occupation HOUSEWIFE Birthplace DENVER, COLORADO

Your children NONE

Where did you grow up? MELBOURNE, VICTORIA AUSTRALIA

Present community OAKLAND.

Education B. E (chem) Monash University, Clayton Victoria. Australia
M.S (Metallurgy) Colorado School of Mines.

Occupation(s) Engineer, Metallurgist.

Areas of expertise Hydrometallurgy, project management, process development.

Other interests or activities Walking, birding, Gliding.

Organizations in which you are active AIIME, ~~Aust~~ Australian Inst.

Mining & Metallurgy

INTERVIEW WITH JOHN TURNEY

I EDUCATION AND TRAINING IN AUSTRALIA, 1951-1977

[Interview 1: July 21, 1994] ##¹Family Background in Mining in New South Wales and Queensland

Swent: Let's begin by having you tell where and when you were born.

Turney: I was born February 3, 1951, in Mt. Isa, Queensland, Australia.

Swent: Did your family have a mining background?

Turney: [Yes, my father worked in a series] of mining communities, mostly in eastern Australia, down to New South Wales and also into southern Queensland. He worked in the beach sands industry for a while, so he used to commute over to Morton Island, just off the coast from Brisbane.

Swent: Where was your father trained? Did he study in Australia?

Turney: Yes, he received a metallurgy diploma from the Bendigo School of Mines, which is in Victoria, Australia. Bendigo is an old gold-mining town, so the history was there. His parents lived in a place called Epsom, where there was gold mining at the turn of the century, and in fact, his grandfather and his father, for that matter, at various times had associations with the gold-mining industry. The family's been involved in the mining business, essentially, for several generations now.

One of the uncles walked from a place called Esperance on the southern coast of western Australia into a place called Coolgardie, which is just south of Kalgoorlie. He wasn't involved directly in the mining business, but he was involved in

¹## This symbol indicates that a tape or tape segment has begun or ended. A guide to the tapes follows the transcript.

the water distilling business. I think his idea was to make a fortune in gold, but instead he distilled water out there.

Swent: That might be more precious. [laughs]

Turney: I think he did reasonably well at that.

Swent: What was the name of the place? Cool--?

Turney: Coolgardie. There's two towns in the western part of the eastern gold fields, and that's Kalgoorlie and Coolgardie.

I went to high school in Victoria, in Melbourne. My parents had moved down there in my early teens. I ended up going to Monash University in Victoria, which was at that time set up as essentially a technical university, and I studied chemical engineering there.

Working for Queensland Nickel: Complex Hydrometallurgy

Turney: When I graduated, I joined a company called Queensland Nickel, which was part of--at that time was owned by Freeport, and it was a lateritic nickel treatment plant, very complex hydrometallurgical facility. In fact, most of my career has been involved with the more complex hydrometallurgical treatment plants.

I worked shift work there essentially for nearly three years, shifting--

Swent: You were an operator there?

Turney: Yes, I was shift engineer. I did a very academic metallurgy/chemical engineering program. The university I went to was very academic, and for some reason I got into my head that I wanted to do something very different, so the idea was to get out, get some practical feel, and get an operator job, and be a foreman for a while, and then maybe go to graduate school.

Previous Summer Work and Training at Mt. Isa

Swent: Did you work out in the field in the summer during college?

Turney: Oh, yes, I had summer jobs. I had one summer job at Mt. Isa for three months, actually with the Julius Kruschnett summer school that was run there. That was a fairly formal program that was run by the University of Queensland, where they get metallurgy, mining, and geology students from all around Australia and New Zealand, and run a fairly formal program with work, lectures. Basically, you got exposure to both the mill, the smelting, and the underground. That was a three-month summer, and that was quite enjoyable.

Swent: Where did you say that was?

Turney: That was at Mt. Isa, in Queensland.

Swent: Sounds interesting. Better than just shoveling rocks, like some summer jobs.

Field Testing Farm Machinery; Valuable Earlier Experience

Turney: No, it was a good experience. I was fairly lucky with summer jobs. In fact, my first job at the end of my first year of engineering, I got this job with New Holland Agricultural Farm Machinery, and went out to western Victoria and basically field tested farm machinery, which was fairly good for a sort of--I'm a city boy, really--sitting on the back of a tractor mowing hay and measuring the temperature of the oils in the gear box, and the slash and everything else associated with gear boxes.

Other Previous Jobs: Environmental Technician, Plant Nursery, Kentucky Fried Chicken

Turney: I had another summer where I did an environmental project, working for the City of Springvale, which was about to build a fairly large sewage treatment plant, so there were some questions regarding the water that was leaving the City of Springvale and heading towards the bay. This is all in Port Philip Bay in Victoria.

Oh, and I had other jobs, working for the normal sort of laboring situations that you did. I remember my last year of high school was a hard one, because I worked for a plant nursery during the day at about a dollar an hour for forty hours a week, and then I worked for the first American fast-food store that was

put up in Australia, which was Kentucky Fried Chicken. So that was my first exposure to American sort of fast-food ideas, and that was my evening job. So that summer, I must have worked seventy or eighty hours a week, but it was one of those times I was--I wanted to get to the university, and I needed some money so I could go. I saved it up, but I ended up getting some scholarships and some other help, so it wasn't too bad after all.

Swent: No. When you're young, those things aren't so hard. It sounds like a very interesting--actually, some of those things later came into play, the sewage treatment plant wasn't too far off from--

Turney: Yes. In fact, the job I had with the environment, in fact, the biggest issue we've got, believe it or not, is sewage treatment.

Swent: This is at Eskay?

Turney: The Eskay. The contrast in my life--coming from a desert environment where nobody even knows what snow is, to a place where there's 100 feet a year--is quite amazing.

Swent: This is up in British Columbia.

Turney: In British Columbia, right. In fact, as my mother says, she's not quite sure what a nice Queensland boy is doing working in all that snow. [laughter]

Swent: They haven't come to visit you?

Turney: They may come this summer, actually.

But anyway, when I finished after three years or so at Queensland Nickel, I decided I wanted to go to graduate school somewhere, and the idea was to head off to either the U.K. or the United States. I had an interest in coming to North America, mainly a bit of fascination with mountains and snow and things like that. I thought that would be a neat thing to do. So I ended up applying to several schools, and got a place at Colorado School of Mines. I came over, and spent two years there, did a master's degree.

II GRADUATE STUDY AT COLORADO SCHOOL OF MINES, 1977-1978

Return to Academic Life with Valuable Practical Experience

Swent: When was this? When did you come to CSM?

Turney: It would have been actually January 26, 1977. January 26 has been an interesting date for me. One, it's Australia Day; it was the first day I arrived in the United States--January 26 the year before; and I started at Homestake on January 26.

Swent: Isn't that interesting? And of course, the school terms and our school terms are reversed, so you have to begin in the middle of the year here. That's always a problem, isn't it?

Turney: Yes. It didn't really matter that much in graduate school, because you basically had a series of courses to do. So when I came to the States, starting a program in the middle of the year didn't really matter, because it was a semester-based system.

That was an interesting experience, because after essentially being out of school for four years and then coming back to graduate school, some people do that, but most people don't. They tend to do their undergraduate program and then go on to graduate school. But coming back and being away from the books and sort of formal education, that first semester was hard, getting those routines back.

But looking around and looking back on it now, as I've advised other people, I think it's the best way to do graduate school. There's a maturity that comes with going out to work and coming back. You get a lot more out of the programs.

Swent: You know much more about what you want to get, too.

Turney: And I think just understanding the business. You have to be out working in the business for a few years before you really

appreciate the problems. You may not necessarily get that directly from the academic institution. I think you can demand a lot more and you get a lot more out of it.

Influential Professors

Dr. William Averill

Swent: Tell me about what you were studying and who some of your teachers were.

Turney: I studied under--my direct professor was Dr. Bill Averill. Bill Averill had graduated from the University of Utah. He had studied hydrometallurgy under Milt Wadsworth, who has made quite a name for himself in the western part of the United States in hydrometallurgy, particularly in the copper leaching area. Bill ended up staying on at Colorado School of Mines I think for about six or seven years, and then he took off and joined--I think he worked down at Sandia in Albuquerque, and I think at the moment he's looking after the cleanup program at Rocky Flats.

Dr. Gerald Martins

Turney: Another fellow that was at that school was a gentleman called Dr. Gerry Martins. I did a couple of courses with him. John Hager was another professor on the pyrometallurgical side.

Albert Schlecton and the Kroll Institute

Turney: At the time I was there, there was a wonderful old gentleman called Al Schlecton. Al was the Kroll Institute chair. In fact, the Kroll Institute paid for some of my time there. I had a semester or maybe two semesters where I had some sponsorship from the Kroll.

Kroll was a very famous metallurgist. In fact, he's the gentleman that developed the process to essentially produce titanium, the Kroll process. That foundation that he set up

essentially established a chair in the Colorado School of Mines which still is running today.

The way I understand how the Kroll worked, it seemed to be there was always some sort of sponsorship for a foreign student under the way he set up the foundation. I don't know why, but there always seemed to be somebody that was sponsored that way. When I was at Colorado, there were about four Australians there. My generation there was probably the end of the sort of self-sponsored students, because the cost of doing these things is just prohibitive now.

For me, that was three or four years worth of saving of money so that you could come over as a self-sponsored student. That's fairly rare now, but I think there were three of us there that were self-sponsored--not a possible thing any more. Which is a shame, because I think a place like Colorado School of Mines traditionally had four or five people from Australia who would be in mining or metallurgy programs, if you look over the records of the last hundred years.

It's always been a place where people have thought about going. Even talking to my father, it was something that he thought about doing in his time as a place to go.

Thesis on Extraction of Lithium from Brines

- Turney: Probably the key thing that I got out of my research program at Colorado School of Mines was I ended up doing a thesis on extraction of lithium from brines--basically evaporation ponds, trying to work up a model on how you could predict when the lithium would actually precipitate from the solution. Essentially a subject on what they call high ionic strength solutions, where there's a lot of dissolved metals in solution. When you have a lot of dissolved metals in solution, they behave quite differently. They don't behave ideally. Most solutions we deal with are fairly dilute, and these brines are really high strength solutions.
- Swent: Interesting that you would choose that. There was no Australian connection or Colorado connection, either one, was there?
- Turney: No. Actually, my idea when I came to Colorado School of Mines was I wanted to do a project on the pyrometallurgical side.
- Swent: Which again was new for you.

Turney: No, what happened at Queensland Nickel was, it was a mixture of pyrometallurgical and hydrometallurgy. We had a roaster there, and in fact, I spent twelve months as a shift supervisor in the roaster. Then I also worked at the back end of the plant in the reduction process. In fact, my exposure to hydrometallurgy, direct job experience at that time, was fairly weak. In fact, I spent most of the time in pyrometallurgy.

So what I decided to do at Colorado was actually to do a thesis on the pyrometallurgical process, but that was difficult to get sponsorship for, so I had to pick some project that didn't cost a lot of money, because you were basically using the funds that were available there, so you had to do something that was fairly simple and, in fact, more computer-based. That's why I ended up choosing this evaporation project on lithium. It was fairly straightforward.

Swent: Was this sponsored by any lithium producer?

Turney: No, it wasn't. We had some foundation money--might have been some NSF money. I think that was it. Fairly small. Bill Averill was a new professor. He didn't really have too many contacts at that stage.

Swent: Where are these lithium brines? California?

Turney: No. Most of the lithium brine--saleras, I think they call them--are located in the high areas of South America, Bolivia, and some places like that. The lithium here in the States that people chase tends to be lithium carbonate and things like that, out of --I don't even remember what you call them--pegmatites, I think it is.

The thinking about prospects for lithium at the time, were these predictions that lithium demand would dramatically increase because of fusion reactors and energy devices like batteries. People thought that lithium would be used as a protection for the neutron gatherers in these devices, so you'd basically have these coatings of lithium. Lithium liquid would be the enclosure vessel, falling down the inside of the reaction vessel. Because lithium is very low on the periodic table, and it doesn't--it can actually take a neutron without going radioactive.

Changes in Nuclear and Fusion Research and Power Consumption

Swent: But this didn't actually happen?

Turney: No. Well, you know, what's happened is the nuclear industry and fusion industry has not progressed anywhere near as fast as what people were predicting fifteen years ago. In fact, in the United States, the reverse has happened, and we've stepped back from that as an energy source. But fifteen years ago, in my age group, you were very optimistic that moving towards fusion was going to be a wonderful thing to do and would happen. And then how to contain these reactors and generate electricity. As a result, there was a whole series of different metals that were identified by the National Science Foundation that needed further work. At that time, there was a prediction there would be a fairly significant shortage of lithium if some of these reactors took place, so that's basically where the direction and sponsorship was coming from.

Swent: It's amazing to think what a big change there's been in attitudes and expectations since that time, hasn't there?

Turney: Yes. But even on power consumption, I think we all used to think that that was going to exponentially climb, and what's happened is we've somehow improved efficiencies, the growth in energy usage has not occurred as fast. We have improved the efficiencies of our generating units and transmission systems. That's probably good, too.

Vicki Lee Turney, Physicist

Swent: Right. So you were busy, and also acquiring a wife at this time?

Turney: [laughs] Yes, what happened there was Vicki had graduated. She has a degree in mathematics and physics, and she thinks of herself as a physicist.

Swent: Do you want to give her full name?

Turney: Vicki Lee Turney.

Swent: Victoria?

Turney: No, Vicki. Just plain Vicki. She was born in Colorado. Her father worked in the defense industry, essentially, so she traveled all around the country, and spent a bit of time in the U.K. I can't remember the firm her father was working for at that time, but you've probably seen the big golf balls that are all around the world for the radar towers at the big airports, which was part of the NATO defense strategy during the Cold War,

building those right across Greenland and right across northern U.K. So they lived in the Yorkshire area for a while. She went to school there for a year or so, I think.

She was real interested in science, growing up in Huntsville, Alabama, I think, knowing Von Braun and other rocket people. In fact, the last couple of days with this twenty-fifth anniversary of Sputnik has been something she relates to quite strongly, being so interested in that sort of thing.

But she went through engineering school, engineering courses as she did her physics and math. Many classes she talks about as being the only female as she worked through that. She ended up coming up to Colorado when she graduated from University of Texas.

So what she did, I think she started out in physics and then added another year on and ended up being both a B.S. in mathematics and physics. She had quite a strong emphasis on engineering courses.

Then she got this job at Rockwell International, and came up to Colorado and worked in their research department. What she did is, she had time off to go to graduate school, where she was studying physical metallurgy, materials science. Her main interest was the welding of so-called refractory metals. Vanadium was her main interest. She did her research thesis on that, and got her master of science in metallurgy--metallurgical engineering. And she worked for Rockwell International for about, oh, six or seven years, I think. Worked her way up to senior scientist. She worked with some very talented people at Rockwell. I think she really enjoyed that.

Then she left them and joined Storage Technology, worked for them for a year or so. Then I had to leave Colorado, had this job out at McLaughlin, so she came with me. We went out to California. She did some contract work, but she hasn't really worked a lot over the last seven years--different bits and pieces. She's kept up her interest, and she's been doing some courses--quite a bit of mathematics, bits and pieces.

She did have a contract in Lake County, interestingly enough. There was a contractor who lived in Lake County that was doing some work on submarine detection systems.

Swent: For goodness sake, Lake County? [laughter]

Turney: Unbelievable, I know. There were two fellows that had come out of L.A., bought a pear orchard, put a bunch of computers in this

old bank building, and set up office there, and away they went. She worked for them for a little bit of time. In fact, unfortunately, she just got her clearance all cleared up before we moved up to Vancouver, so I've mucked her around again.

Hiking, a Major Interest

Turney: So anyway, how we met was she was at school. I met her there. I was very interested in hiking. In fact, that's probably still our major interest. At that time, my spare time was spent on hiking. The key thing in Colorado is to hike the 14,000-foot peaks. There's fifty-two or fifty-three of them.

So I met this girl, and she was just really fit. She did these things. I went on one hike with her, and I could barely keep up with her. I said, "This is too much. I'm going to have to do something about this." So in fact, I got into a running program just to get fit so I could go out with this lady a couple of times on a few hikes. That actually is another story. So we spent one whole summer hiking in the mountains together. I'm absolutely convinced it's the best way to get to know another person.

Swent: Oh, I'm sure it is.

Turney: With blisters on your feet and everything else, you really get to know each other. Well, by the end of that summer, I was finishing my coursework, I was just about to wrap it up, and I was heading back to Australia. I said, "Would you want to come with me?" She said, "Yes," so we got married.

Swent: What degree did you get?

Turney: I got a master of science in metallurgical engineering.

Swent: Okay. So you got married.

Turney: I got married, and then Vicki said, "Well, I need to finish my degree, so we'd better stay on in the States." So I then started to look around for a job. Not having any work papers at all, it was a little difficult. She ended up sponsoring me for that, so I was able to get a work permit and eventually a resident alien status.

III WORKING WITH AMAX R&D, 1979-1980

Environmental Work; Water Treatment

Turney: I got a job with AMAX R&D in Golden, Colorado.

Swent: When was this?

Turney: Gosh. That would be '79. I worked for AMAX 1979 and 1980. So I got married, started work with AMAX. Vicki continued working at Rockwell and finishing her degree. I worked at AMAX in their environmental group, really.

Swent: When was the Henderson mine developed?

Turney: Henderson was already established and working. It had been up and running three or four years. The first job I had was, they had a water treatment plant on the discharge from the Leadville property, the tailings dam that's in the valley as you go up into Leadville. The creek system would drain down into Dillon Lake, I think it was. That was my first association with lots of snow and high altitude and all the problems associated with cold and low temperatures.

##

Swent: Did you like it?

Turney: Yes. I've always been pretty interested in--I loved the mountains, and still do, so having an opportunity to work up there and see that was really interesting for me.

What we had to do there, we had to make some changes to a water treatment plant. It was essentially some fairly major modifications, so I got fairly heavily involved in that change, and then eventually didn't really do the R&D job at AMAX that I went there to start.

Enjoyment of Hands-On Project Engineering

Turney: Probably what I realized was I really liked the hands-on business, more the project engineering side, and making sure that there was some pretty good solid technical background to it. I've sort of been able to have jobs that I've been able to get that flavor.

So I did that job there, and then I ended up working on the design and construction of a water treatment plant for the discharge from AMAX's Mt. Emmons property.

Swent: Where is that?

Turney: That's in southern Colorado, the back of Crested Butte, actually.

Swent: Crested Butte never even came into production, did it?

Turney: We never started it up. But we had to put in the water treatment plant, because the mine was there and there was an acid rock drainage problem from the mine. So this facility collected that water, treated the water for discharge.

Swent: It was actually built?

Turney: Yes, it was built, and we started it up, and it's still running today. Built a small--it was about a \$10 million job at the time, so it was a fairly significant water treatment plant. There are some real difficult problems treating acid rock drainage with cold water, because you precipitate out the heavy metals, and they won't settle in the cold water. So you have to do something else like dissolved air flotation, and that was what we were looking at there, and that's how we solved the problem.

Swent: Did you have a laboratory down in Golden where you--

Turney: Yes. The lab work, the development work, was all done in Golden, and then we took that process development, went to an engineering firm, which was Dravo, and built the facility in the mountains. Started it up, and about that point in time we started it up, I then left AMAX and joined Homestake.

IV HOMESTAKE MINING COMPANY; THE MCLAUGHLIN MINE, 1981

The Challenge of Refractory Ore

Swent: How did that come about?

Turney: What happened was the McLaughlin project, they'd done the preliminary drilling and delineated an ore body--not the full ore body. So they knew they had something significant. They had done some preliminary test work. That was done in Salt Lake City with a very small laboratory run by a fellow called Bull Dawson. They had realized that they had a refractory ore body at that stage, because they weren't getting very good gold recoveries with direct cyanidization.

Swent: May I just ask a question? I don't understand this. They had done diamond drilling, hadn't they, and they had these cores?

Turney: Yes.

Swent: Why was it such a surprise?

Turney: No, it wasn't a surprise. I think what people do is they take the core, and you get erratic results. That's what worries you. You get one sample, and you get an 80 percent recovery, and you get another sample and you get 30 or 40 percent recovery. At this stage you probably knew that there was something wrong, a problem, but you'd never know how much of a problem until you've got the whole ore body drilled out, you've established your reserves, and the geologists have determined, well, this is free milling ore and this here is refractory ore, and we've got these various quantities of ore.

So I'd say what happens is, whenever you look at an ore body and you get good results and bad results, the first thing you say is, "Well, we haven't really got much bad stuff surely. Nature couldn't be that tough on us." Then what probably happens is, as

you get more information and realize how big the ore body is, and then how extensive this potential problem is, and that was really where they were at. So you were really right at the beginning here. You knew you had some problem areas, in the sense that it gave low recoveries. You hadn't quite got the ore body drilled out, so you didn't quite have all the reserve picture in front of you. That was just evolving.

So I'd say they were at the point where they said, "Well, we might have a problem here, because a lot of this stuff is refractory."

Metallurgical Research at Homestake's Golden, Colorado, Office

Turney: What had happened then was I'd worked with a gentleman called Curtis Carey at AMAX, and Curtis had joined Homestake a year before me, and he was working with Richard Kunter and Doug Halbe.

Swent: In Golden?

Turney: In Golden. I think that was the extent of the group at the time. It essentially was Doug Halbe and Richard Kunter. So Curtis joined because things were hotting up. Because at that time we had all those issues at Lead [South Dakota] with the water treatment, and Whitewood Creek, and Doug was very involved in that. Richard was essentially supplying the effort to support the geological exploration effort, which at that time, Homestake was spending a tremendous amount of money on, since there were lots of properties that needed metallurgical evaluation.

There was another gentleman called Phil Walker, who was also involved there. Phil had come out of the uranium side of the business, Grants, New Mexico.

So they needed somebody. My feeling and discussion I had was, they weren't sure how long it would go for, but I looked at the job and thought, "Well, okay, a year or so will be okay, then I can get back to Australia."

Swent: You were talking to Carey?

Turney: Yes.

Swent: And there was a job?

Turney: It was a job that--it wasn't really sure what it was about, in the sense that it could evolve into something, and then there would be a position as a metallurgist working for the mill superintendent. We had no idea how big a job it would be, how long it would take to develop, but there was definitely a job to at least help with the initial development of this project. I think my letter of appointment says, "Working through the development, and then eventually assisting the mill superintendent in the operation of the plant." So a traditional metallurgical support position at the job site, not knowing how big or actually whether we'd have a roaster or an autoclave or anything. They didn't even talk that way at that time, although we were suspicious that there would probably have to be a hydrometallurgical treatment here due to the fact that there was mercury in the ore. So that was essentially the context of my coming on board.

Swent: But you were still hoping to get back to Australia?

Turney: Yes. In the back of my mind, that was what I was going to do. My thought pattern was--well, I needed another year or so in the States until Vicki finished her degree.

But what happened was, I joined Homestake, the ore body then was--

Swent: So this was January--

Turney: January, '81. Very soon after that, the ore body was announced to be much bigger. We really had something there that was, what, 3 million ounces, essentially, announced at that time. Twenty million tons, I think it was.

Swent: Twenty million tons of gold?

Turney: Twenty million tons of ore, 3 million ounces of gold. I think that was the numbers; I can't remember exactly.

Swent: I think you're right.

"Bull" Dawson Successfully Tests an Uncontrolled Pressure Autoclave

Turney: The first work we did was, Bull Dawson had done one autoclave test, and it was an uncontrolled pressure autoclave. All he could do, he couldn't really control temperature at all. All we

knew was that it was possible to oxidize the sulfides under these oxygen conditions.

Swent: That interests me, because the legend is that nobody had ever autoclaved a gold ore before, and yet here you're saying that Bull Dawson in Salt Lake City was using an autoclave on gold.

Turney: No, let's just talk about how that would have evolved. Nobody had ever used an autoclave to commercially treat refractory gold ores, but there are references in the literature. People knew you could oxidize sulfides with oxygen in autoclaves. In fact, there was quite a bit of literature on that.

Swent: When you speak of the literature, specifically what--I mean, you're not looking this up in the *Encyclopaedia Britannica*.

Turney: No, I'm looking this up in the metallurgical literature, and probably one of the key references is a fellow called Halpern, who was a professor of metallurgy at University of British Columbia, actually, probably the late forties. There's another gentleman called Frank Forward who did a lot of work on oxidizing sulfides. And in fact, a lot of that work is really what the basis of--what Sherritt Gordon was all about.

Sherritt Gordon, a very innovative group of people in the late forties, early fifties, developed basically these ideas of how you could treat these sulfides under pressure with oxygen. It's not as if people didn't know that you could do that. I think everybody was quite acquainted with the fact that you could oxidize sulfides and essentially increase the oxidation rate of sulphides if you did it under pressure in a pressure cooker. But the question was always, how could you do it? How could it be possible to actually develop the equipment to do that? Laboratories and academics had been playing around with that.

Nobody really thought about it as an alternative to treating gold ores, because traditionally what everybody did, if you had a refractory sulfide, you'd put it in a roaster, you'd heat it up, and break down the sulfide with heat, which would then evolve sulfur dioxide, which goes up a stack. Doing it in a reactor--I think people knew you could do it in a reactor, but whether that was practical, everybody would have said no.

Technological Constraints: The Crucial Pressure Letdown System

Swent: Why?

- Turney: Because the equipment wasn't available to do it. That's really what part of the real story of McLaughlin is about.
- Swent: Was the pressure the problem?
- Turney: Actually, it's the pressure letdown system. Maybe if I describe it, how that sort of evolved, and we'll get to how that problem was solved, maybe that's the best way to do it. Normally when I talk, I have diagrams. [laughter]
- Swent: I know, this is hard. We'll put in an illustration, maybe.
- Turney: What existed was--and Richard knew this.
- Swent: Richard Kunter.
- Turney: Richard knew this. He had worked in western Australia and knew about the pressure, the autoclave systems that existed at Western Mining and Kanowna.

Correlating with the Nickel Industry

- Swent: And they were used for what?
- Turney: They were nickel. In fact, there's a real strong correlation with our thought pattern that we ended up evolving at Homestake and in the nickel industry. I had an association with the nickel industry, and so did Richard. Curt Carey did as well, for that matter. Why I talk about nickel is that nickel has a very complex metallurgy: lots of questions of oxidation, transferring of oxygen, transferring the metal species to the liquid solution and dealing with the liquids. There was this knowledge around--and I think probably the driving force to do an autoclave test. Richard would have said, "It's probably possible to oxidize these sulfides," so he discussed with Bull Dawson, "Let's get some of the ore and try to oxidize it." Really didn't have the right sort of equipment to control the reaction and do the other bits and pieces, but basically the concept was there.

So when I arrived at Homestake, okay, we had this as a possibility, and we spent a lot of time working with a consulting firm called A. H. Ross.

Bob Pendreigh of Al Ross and Associates, Consultants

Swent: Al Ross? From Toronto?

Turney: Yes. This group of people were associated with mainly the uranium business.

Swent: And Sherritt Gordon was in--

Turney: Fort Saskatchewan in Alberta. Bob Pendreigh was the consultant that we used. Bob eventually left A. H. Ross, went to work for Wright Engineers in Vancouver, and he's with another engineering group in Vancouver now. But Bob Pendreigh actually had worked in South Africa at the time of the beginning of one of the first attempts at autoclaving the Witwaterstrand ores that contained some uranium. They used a--I forget what they call it--a reverse leach system where they'd oxidize with an autoclave, remove the uranium, and then wash and leach with cyanide to remove the gold.

It's interesting, that connection comes back in a couple of places, because what happened at Western Deep [Mines]--and I think Bob Pendreigh was one of the key early pilot plant operators that actually ran a continuous autoclave. They experimented with letdown systems on total-ore autoclaves. Not just a concentrate where you dissolved the ore in the autoclave and then had a very dilute solution, and then letting down--that is, taking a solution from a high pressure to a low pressure was a very different set of circumstances and problems than taking a slurry that was 40 percent solids from a high pressure to a low pressure.

So they'd experimented. Nobody had had a lot of success with that, but Bob Pendreigh was involved in our project as a consultant. There was Richard, Bob, and myself, and then a little bit later, Bob Lear.

So what we did at that point is then set up a program at Hazen to formally try to--

Program at Hazen Research to Design an Autoclave System for Total-ore Slurry

Swent: This is Hazen Research in Golden?¹

¹See Wayne C. Hazen, *Plutonium Technology Applied to Mineral Processing; Solvent Extraction; Building Hazen Research; 1940 to 1993*, Regional Oral History Office, The Bancroft Library, University of

Turney: Hazen Research in Golden, to formally develop some parameters so that you could actually work out how to design a system. This is the kinetic studies, trying to figure out how long does this material have to stay in a vessel, what pressure should it operate at, what temperature, what was the best acidity levels, how much oxygen was required, what over-pressure--in other words, how much extra oxygen was required in the gaseous phase. You needed a control system to do this.

That was what my job was. I was very interested in kinetics and things like that. I understood that reasonably well. So we had to set up a program on how to develop and how to understand and define that. Nobody had ever done anything like that. We didn't have any database--you didn't know how you'd run a program, how to evolve that--so with Bob Pendreigh's help, we evolved a test program to work out whether you could do this. All you knew was, okay, it appears you can oxidize sulfides. Whether it's practical, how long will it take, how much pressure --we didn't know those things. We didn't really get that out of our work with Bull Dawson. All we knew was maybe it was possible.

So now we developed a formal program to come up with whether you could do it or not. At the same time, we were doing cost estimates and studies on other processes--roasting, trying direct cyanidation, trying to float, anything we could think of to overcome this refractory problem and maximize the gold recovery.

Optimism About the Gold Price

Turney: There was one parameter that we had at that time which influenced us dramatically: a very optimistic feeling about the future of gold prices. We had a direction to maximize the gold recovery. Because the feeling was gold price was going to go up, so making sure you maximize that recovery was key. That made a lot of sense when you looked at it in that financial context.

So at the end of the day--

Swent: I'm trying to think how much gold was at that point.

Turney: Well, we had gone through that \$800 mark, and we were sitting in the \$400 range. People were still very optimistic that other blips were going to occur any day.

Swent: It was supposed to stay around \$600, as I recall, we thought.

Turney: Exactly. In fact, some of the early studies, you look back at McLaughlin economic studies, you did a \$400 and a \$600 gold scenario. And if that was the case, we were very correct in what we were doing. Maximizing gold recovery was a good idea.

Swent: And you could spend a lot more money to do it.

Turney: Exactly. So what we had, this is all early part of '81--

Swent: Sounds as if you were pretty excited.

Turney: Yes, really high as a kite on this. My whole attitude to the job changed dramatically because, all of a sudden, you're in the middle of a really exciting development program, totally frontier-type stuff. It wasn't just a job any more; this was something else. I'd landed on my feet, and ended up with something that was really good, and you've committed--these ideas of heading back to Australia disappeared really quickly.

In fact, fourteen and fifteen years later, every time I turn around, I get something more interesting to do, so I'm still here, and I've probably made my home in North America now. But that's not a problem any more.

What was going on was it was this whole evolution. You had some interactions and ideas from people who had very different backgrounds that were here. I mentioned Bob Pendreigh, who had come out of that Western Deep experience. And interestingly enough, just as sort of a digression, a fellow who worked for Bob Pendreigh in South Africa, Western Deep at the time, was a gentleman called Ken Thomas, who then after quite a torturous path ended up working for Barrick. Barrick has taken the autoclave treatment of refractory gold ores to a very high level.

Swent: This is in Nevada?

Turney: Nevada. So really both what we had and what Barrick had to a certain extent can be related back to what Anglo-Vaal eventually did there, and Western Deep. I think they deserve a lot of credit, and we'll be talking about them very significantly when we talk about the design. And that relationship that John Ransone had with those people was probably key to us getting the project going. But that's another little story a bit later on.

So here we are, we were developing these ideas, and not knowing how you would do it.

Unsophisticated Batch Testing at That Time

Swent: They were sending you, what, bags of ore from McLaughlin? Just mechanically what are you doing? Or working with computers?

Turney: What happened there, we had the normal split core sample, small samples that we were using. And in fact, when we decided to up the program at Hazen, we decided we needed to do quite a lot of what were basically two-liter batch tests in a little pressure autoclave--a fairly standard, small system; not a lot of control over the vessel. In fact, if you go to Hazen today and you see how these things are tested, it's very sophisticated. We were pretty amateurish, when I look back at how we did that.

Swent: I did visit the Hazen plant just last month.

Turney: You would have seen a horizontal autoclave now. Did they show you that?

Swent: I remember that there was one, yes.

Turney: None of that sort of stuff existed fourteen-odd years ago, or thirteen years ago. It wasn't there. All there was was just these little batch autoclaves.

Swent: You had sort of a corner of a little section there?

Turney: It was just a little corner. Basically the Bunsen burner underneath an autoclave, trying to keep some heat, and you'd basically move it in and out by hand as you're watching the temperature. Quite unsophisticated.

Working Without Fax or Computer Help

Swent: Did you do it yourself, or did Hazen technicians do it for you?

Turney: There was a Hazen technician. A gentleman called Bob Balderama was the technician involved. I've forgotten the name of the scientist who was assigned to the job. Basically you'd go over there every day as we pulled together the data, and then go back to your office and look at the data. And basically what you were trying to do at that time was work out how to size equipment so you could figure out a capital cost estimate. You were running these rough capital cost estimates and trying to think through and scribble up flow sheets, so you were drawing little flow

sheets and trying to work out what would be involved in this, or how would you do this.

Swent: Homestake had an office in Golden at that time?

Turney: That's correct, so that's where I was located.

Swent: But you were getting information back and forth, by phone, by-- you didn't even have faxes then, did you?

Turney: We didn't use faxes. I don't think there were any faxes around. I think you used to go over and pick up your data, you're right, and photocopy it off and bring it over, look at things. I was looking through some notes the other day, and I was amazed how much handwritten stuff you used to do compared to all the spreadsheets that everybody seems to issue now.

Swent: For computers.

Turney: Yes. It's changed how you look at data and compile reports and graph results. Because most of the data I would have graphed by hand myself.

Getting a Composite Sample at the Mine; Meeting Bill Wilder

Turney: But one of the interesting little stories, I remember we got to the point where we had to get an increased size of a sample. We had gone through with a geologist and identified some core that we needed, and the core had all been collected and bagged up. There were particular core sections that we needed to go and gather. Flew out to California with Curt Carey, and we decided we were going to collect the core ourselves.

So we drove up to the mine site, which was the old original road, which was pretty tough getting into it.

Swent: From Lake Berryessa? That way?

Turney: Yes. Got up to the site. And we had a rental truck, I can't remember who it was but it had a closed back with a lock on it. We were going to load this up with core material in the bags, drive it over to Salt Lake, and get it prepped by Dawson to then basically make a major sample for developing the design parameters. We were trying to develop the parameters for this autoclave process.

So we were fairly sure that's the way the process was going to go, because none of us had much faith that we'd be able to ever permit a roaster with the mercury emissions that we had. Mercury recovery was quite a difficult issue. Still is, of course, although there are some technologies available now.

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Turney: So we drove in to the site on the original road. The only thing that was there at the time was Bill Wilder's stills, and the geologists had a room there. And quite a bit of the core was--

Swent: Bill Wilder's stills, you said?

Turney: Yes, he had his old mercury stills still there.

Swent: Yes, mercury stills. We should make clear that that's--
[laughing]

Turney: Yes, sorry. It was one of those--

Swent: Retorts, is it?

Turney: Retort. Interestingly enough, I remember we drove into the property to pick up some of this core and spent some time talking to the geologist to make sure we had the right sample. I was with Curt Carey, and we drove into the property. It must have been early in the year. There was a fair bit of water around. It was raining.

We drove in, and there was a group of people. We drove by, and water splashed out. We got in, and I remember walking into this office. A while later, one of the geologists said, "You know, you guys ought to be real careful. You realize what you did there when you drove by those guys. You splashed the owner of the property here." That was Bill Wilder.

So anyway, Bill comes up, as Bill always liked to find out what's going on, and "What are you guys doing here, what are you doing?" We spent a bit of time talking to Bill, because Bill always had some problem. I think that he had all these old batteries that he was trying to get something out of, and he was always trying to get some free advice on how to do something. That was my first introduction to Bill Wilder, but he was a fascinating guy. [laughs]

Swent: He forgave you for splashing him?

Turney: Oh, he forgave us. He was just more interested in why we were there and what was happening. We were talking about getting the sample, that we were going to do some test work.

But we ended up collecting up the sample, and there was some more core that was actually stored down in a storage area somewhere down in Clear Lake, picked the sample up, got across the mountains--because I think there was some snow on the pass--and headed towards Salt Lake, dropped off the sample. And that was the beginning of the real work that we started to do at Hazen. So that would have been early in the year, 1982.

Swent: Why did you select--what was different about this sample?

Turney: It was now a composite. It was something that was now representative of what we thought that ore body was all about. Before that, samples had been done on individual core material. Now, geologists and mining engineers said, "This is how it will be mined, or at least we think; therefore, this represents what this plant will eventually see." So we were able to blend the various core material together to try to represent something that represented what the plant would eventually see.

Establishing Process Parameters which were Patented

Turney: What we ended up doing, as I said, we ran these tests and we came up with this idea that, yes, it looked possible. We in fact came up with a temperature and a pressure and a residence time, and in fact, those parameters that we established in that rough-and-ready way at Hazen ended up being fairly close to what we eventually designed, built, and operated our autoclave plant at. So the process that we eventually patented, which was based on that work, was fairly close to what we ended up operating.

Swent: That must be very satisfying.

Turney: It is, and in fact, it's quite interesting to look at how sophisticated the gear has come now to answer these questions. We didn't really have very much like that at all.

Commonwealth Metallurgical Conference, South Africa, 1981

Turney: The big question that then remained was materials of construction, how to physically let the pressures and all down. I had an opportunity, there was a big Commonwealth Conference, where the metallurgical institutions from Australia, South Africa, and Canada have a meeting every four years. There was quite a few tours involved of some of the autoclave plants that existed in South Africa. Bob Lear had just started with the group. I wrote a little memo to Bob saying there was this conference in South Africa and I thought somebody from the company should go.

Swent: When was this?

Turney: It would have been about May 1981. The conference was around June or July, so I had been with the company about four or five months. So I write this letter to Bob suggesting somebody should go, like maybe Rex Guinivere was there--maybe it was the following year. I can't remember any more. Maybe the following year, '82. So I sent to Bob, "Somebody ought to go to this."

Well, Rex Guinivere said, "Yes, they should, and you ought to go," so I went down. I went to South Africa, and in fact spent about three weeks there. Went to the conference, and visited some of these refractory treatment properties.

Swent: But were these gold?

Turney: No, these were nickel, mostly for nickel. Had a look at the pilot unit, which had been moved from Western Deep over to Vaal Reefs. Came back, and at that time John Ransone had been appointed project manager. We decided to take the development process work and run a fully integrated pilot unit eventually up at Sherritt Gordon in Canada. And that would have been the latter part of '81 when we would have initiated that, I think.

John Ransone and Roger Madsen; Another Trip to South Africa

Turney: What we then did--I came back, talked about what I'd seen down there, and felt that it was pretty important that we have some other people go down, so eventually went back on another trip with John Ransone. And we were introduced to--

Swent: Roger Madsen went once.

Turney: Yes.

Swent: Did you go with him?

Turney: Yes. That was the same trip. What we were doing there, we'd come up with this flow sheet, and what Roger had done was--Roger was a very good mechanical engineer. He had a really good understanding of what we were trying to do in letting down the pressures with all these solids in it, and that's what nobody had done. He became quite concerned about that and had done some calculations to indicate that--had to make sure we all understood how much energy we were going to release.

Important Relationship with Vaal Reefs

Turney: That was the real problem: how to do that. We thought we could get some of that knowledge from Sherrit Gordon, but they didn't have experience in doing that either. So that was why we got associated with Vaal Reefs.

Swent: Were these autoclaves in South Africa made there?

Turney: The pilot one at Vaal Reefs had been made there--yes, the others had all been made there. They were much smaller diameter than anything we were eventually looking at.

But there was this relationship that ended up being forged between a fellow called Dave Dodds, who was a consultant in South Africa, John Ransone, and Bill Kretschmer, who was the fellow at Vaal Reefs. They eventually provided quite a bit of input and knowledge into our design with Davy-McKee, but that happened a bit later.

So basically, at that point in time, we knew that we had to pay a lot of attention to the design of a letdown system. The physical parameters, the operating parameters of what would happen inside the autoclave were probably well established and well understood by the time we left Hazen, before we went to Sherritt. And what we ended up doing at Sherritt is, one, confirming those parameters, and that was done in a series of batch tests, and then eventually a fully integrated mini-pilot plant was put together at Sherritt Gordon.

What I mean by that was, all the unit processes that we'd eventually use were put together. So there was an autoclave, a continuous autoclave, a pretreatment system, acid washing,

precipitation, and a washing circuit fired by a CIP--carbon-in-pulp circuit. And all those systems were put together. We had a full-blown program there. Sherritt had never run a CIP circuit before like that.

Sherritt Gordon, Saskatchewan, Research in Process Development

Swent: Why did you have to go all the way to Sherritt? Why couldn't you just stay at Hazen and finish it there?

Turney: Hazen didn't have any expertise in running a continuous pilot autoclave. Sherritt had made their name as a pressure autoclave people, mainly through the nickel industry. They had some expertise in that area. They, in fact, used that expertise from the nickel industry to, in fact, end up coming out with a zinc pressure autoclave system. One of these systems is installed at Trail [B.C.] that we all had a look at probably late '81 or early '82, I can't remember now.

Swent: So you were going wherever you could find the experts.

Turney: Yes. And what was at Fort Saskatchewan was a full-blown R&D group, probably one of the better R&D groups, and equipped R&D groups, anywhere in North America. They have always had very high caliber technical people there, very world-wide experience, both chemistry and engineering. But process development was their key. We were there, we worked through, ran this pilot unit there, confirmed the parameters that we'd established at Hazen, and then that data formed the basis of working with Davy-McKee at the time to--

Swent: Now, when you first started, Davy had not been selected yet, I think.

Turney: No. They would have been--I can't remember when they would have been selected.

Davy-McKee, Project Engineers

Swent: I believe it was '82 before they were chosen.

Turney: So what we're talking about now is the period of time--we'd started with Sherritt, we'd done the batch work, we're about--we

might have been halfway through our continuous pilot work when Davy was selected. Then--because I remember we had one more run to do, one of these continuous runs--I think we did three all together--a fellow called Andy Sass and Mike Conway came up to Fort Saskatchewan and saw what the pilot work was. We started talking about the design parameters so that they could kick off their design effort.

Swent: That's interesting too, because again, I keep hearing that all of this was put in with no pilot plant, but that isn't precisely true, is it? There was pilot work.

Turney: No. Yes. What was different about the pilot work was, previously to this, everybody built very large pilot plants. There was a big debate in our company, because that's what our senior management wanted to do, too. You run a big pilot plant. What had changed is the new generation of metallurgists said, "Look, those pilots to prove up how to size stuff; we understand how to do that. We can do that out of the back of the book. What we need to do is understand the chemistry, and to understand the chemistry, you don't need a big pilot plant."

Swent: Is the chemistry the same for a small batch as for a big one?

Turney: Yes. The chemistry doesn't change.

Decision Not to Build a Pilot Plant

Swent: What does change?

Turney: What changes, what's different, what you don't get out of a small plant is materials of construction issues, which is: does the corrosion occur at a particular rate, what materials stand up, wear properties. And if you're experimenting with engineering questions: how well will the agitation work? How well will the oxygen transfer system work?

You don't get that out of a very small pilot plant, so you don't get the information that you need to design a plant out of a very small facility. All you get is the physical parameters, the pressures, the temperatures, the amount of oxygen, and things like that. But what you couldn't do, and what we argued was, yes, you could run a big pilot plant, but you would spend many millions of dollars to build a very large pilot unit to do that. You'd be better off spending extra money in the full-scale plant, put some extra dollars in there, put the extra millions into the

plant, so that you could insure that it would work, rather than spend it on the pilot plant.

Swent: There is no way to make the pilot plant just a module of the finished plant?

Turney: That would be a very expensive way of doing it because what you're talking about here is very expensive gear, very difficult gear to keep running and operating--even the mini-pilot plant that we ran. And you're talking about something which was four batch vessels of one Imperial gallon on each. Even that took a lot of operators to run. You had several operators just to run those units. There was lots of people involved, and that's where the cost is, very skilled technicians, lots of dollars being spent on labor just to run the pilot plant. If you have a big full unit, then you'd almost need a full plant contingent to maintain and operate it just to get your database.

So the conclusion is, as the metallurgies got more complex and as plants have got more complex, you're better off keeping them small, keeping the labor component down, so you can get your technical information.

Swent: And by doing it at Sherritt rather than building a pilot plant at your own facility?

Turney: Right. So they had some gear, and more importantly, they had people that knew how to run this sort of gear. So you went there, you ran that, you had some expertise in putting that together, analyzing the data.

What we then ended up having to do was the sizing of the letdown system and the autoclave. Basically the thermodynamics, the heats of reaction and that, we did out of the back of the book. We basically pulled out a thermodynamics book and worked out how much heat would be generated, and the calculations that we did based on that theory proved to be fairly close to our numbers that we measured two or three years after startup, where we actually physically measured temperature in and out, worked out heats of reaction, and came up with parameters.

Those numbers now have become standard. The industry is using that as a standard number to design these things. We didn't have that. We had to work it out. We sat there--

Swent: "We"?

Turney: I did those calculations, and then they were also done by Mike Conway of Davy International. Mike did them in a much more

sophisticated level than I did. He had a computer heat-and-mass-balance program that he did. I did all that by hand and just estimating, trying to work out how much heat would occur as the sulfur oxidized and then relating that to the time in the reaction vessel to work out how much heat was going to be generated. Roger Madsen was involved in those ideas. I spent a fair bit of time talking to Roger about that.

Swent: I have two questions: I want to ask why or how it was Sherritt Gordon was eventually phased out for some reason, and also what precisely it was that you patented.

Turney: Okay. What we patented was essentially the process, the linking together of pressure oxidation with gold recovery, and the conditions under which you could do that. So it's really the concept; that was what was patented. No physical hardware was ever patented.

On the Sherritt question, what happened was their knowledge of autoclaving and pressure oxidation was very extensive, but it didn't go much further--didn't relate to what our problem was, which was what to do with a 40-odd percent solids slurry, and how to let it down. Their knowledge in that area, we came to the conclusion, wasn't that strong. And how they were going to let--

Swent: But you did the pilot there.

Turney: Yes. But the pilot never ever tested a pressure letdown system. That was definitely never piloted. So when people talk about, "we never piloted," that part was never piloted.

Swent: And that was the crucial part?

Turney: And that was the crucial part. What you piloted at Sherritt was a pilot plant that actually tested the chemical parameters. It was really a project to find out what the chemistry was. The chemistry downstream of the autoclave is just as critical about what happens in the autoclave itself, because now you had these solutions that had very different things in solution: high sulfate solutions and the heavy metals were all in solution and had to be removed by precipitation and washing, and the consequences of that on a carbon-in-pulp circuit, nobody had any real knowledge of that. You might have seen something like that occur from roasters, and in fact, there were some problems in treating roasted ores that were then repulped with CIP, with lots of scaling problems, et cetera with the carbon. We had to find out and understand what would happen there. That's what the pilot plant did.

So basically it proved temperatures, pressures, residence times, but it didn't talk about how the gear would look or how it should be arranged.

Swent: So you reached Sherritt's limits.

Turney: Yes. What we defined as their limits. Basically they're very good at that front end, getting you up and going, and had some excellent knowledge in that area. Excellent.

Environmental Concerns Dictate Autoclaving Despite the Cost

Swent: Did you personally have any differences of opinion ever with anybody that you were working with on some of these things? Did you have to advocate your--

Turney: Yes. I think when we'd made the decision to go with autoclaving, probably we as the metallurgy people probably understood that that was what we were going to have to do. If we were going to satisfy what we were hearing and understanding on the environmental side, what we were understanding on the recovery side, I'd say we were fairly convinced that we'd have to do something quite different here. We were not going to be able to replicate what else had happened in the industry.

That was a big dilemma for the company, because immediately they saw a complex plant which meant a different sort of people than they were used to to run it. They saw an environmental situation that had to be very tightly controlled, because we understood what the external parameters were. And you saw a much larger capital project than what people envisaged for McLaughlin. You saw all this gold there, but you saw some high costs to get it.

That probably in the San Francisco office caused a lot of debate on whether we had any business getting into something as complex as this. It was very early into the thought pattern that the company had at that time, which was underground mine with very simple milling and metallurgy part. The processing part had been a fairly easy and straightforward part of the company.

The Uranium Division People Are More Optimistic

Turney: There was that element that came out of Grants, New Mexico, where there was this understanding that a little bit more complex chemistry is something we can handle. So those people, that part of the knowledge--and there were several people that came from there: Roger Madsen was one that put his mark on it, Phil Walker, Bob Lear--those guys said, "You know, it isn't as difficult as you might think." So there was a lot of lecturing and talking. I must have spent--and Bob Lear would have spent--lots of time giving little presentations and talks about what we were trying to do, because you were talking about something that nobody had done, nobody.

Swent: Who were you giving these talks to?

Turney: Oh, to Bill Humphrey, Harry Conger, Jim Anderson--people located in this office at that time.

Swent: Did you ever meet with Lang? [Langan Swent]

Turney: Yes. Who else was arguing about it? Kurt Gilg. Everybody had an opinion about, "Gee, you guys sure this is what we should be doing?" Good questions, because I think Bill Humphrey probably received from his contemporaries at the time, "You can't do this, nobody's done this, this is difficult. Nobody's done this." That was a word you heard quite a bit. "You fellows sure you know what you're doing? Nobody's ever done this." And that was true. [laughs]

But arguments, discussions. Yes, there was a tremendous amount of discussion on how to do this. Bob Lear and myself debated and argued about a lot of things on how to do the various pieces, and then when the Davy people with Andy Sass and that team, group of people, became involved, everybody had another set of ideas.

After several trips back and forth to South Africa, particularly to Vaal Reefs, I think we finally cemented our approach.

Autoclaving Alternatives to Consider

Swent: What were the alternatives?

Turney: There was, for example, on autoclaving, there was some arguments concerning, instead of putting it in one large, long vessel, maybe we ought to be doing it in a series of pots. There was some work done at Vaal Reefs where they'd done that. But the problems with putting it in pots was how do you interconnect the pots, the thermal expansion of the various pieces, the additional valving that was involved--the advantage being that if one of the vessels failed, you could bypass it. You spent lots of time worrying about, Well, if I've got one vessel, two vessels, or three vessels, how am I going to maintain the system? Look at all the capital involved. You've got to have throughput. How are we going to do that? If one vessel shut down, we might end up dropping down to 50 percent throughput, and it could be out of production for a month or so. How long will the refractory, the brick lining in the vessels, the refractory material last? Nobody really knew under these conditions. Nobody had ever run--

Swent: Pots would be sort of a vertical autoclave instead of a--

Turney: Yes, a vertical autoclave versus a horizontal.

Swent: You did end up with three.

Turney: And that all evolved. There was a big argument about that on how do you design something like this. We want 3,000 tons a year. If one of these units is down, then at least we'd have 2,000 tons. And then we oversized them, so that you'd have 80 percent throughput in the two. So you really had a design for 120 percent throughput.

Swent: I was watching the archival tapes, and it was so enormously difficult to bring in these huge autoclaves. I was wondering why they didn't do six small ones instead of these three outsized ones that caused so much trouble.

Turney: Yes. Everything was a compromise. The bigger the autoclave you had, the less agitators you would have to worry about. The nozzles on an autoclave--

Swent: The agitators in the autoclave?

Turney: Yes, on the top of the autoclave. When you've got a pressure vessel, what you've got to worry about are the seals.

Comparing an Autoclave to a Household Pressure Cooker

Swent: I love my pressure cooker at home, and I relate this to that. Are they similar?

Turney: It's a wonderful analogy.

Swent: Okay. Because I swear by mine.

Turney: In fact, when I talked about kinetics before, when you'd give a little talk to people, the general public, when they come out, I always use the analogy of a pressure cooker at home. Just about everything can be explained by that pressure cooker at home.

Swent: But it doesn't have an agitator.

Turney: But I'll give you an example: to cook potatoes, you put them on the top of the stove, on the burner, and you would cook them to reasonable tenderness in thirty minutes. You put them inside a pressure cooker--

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Swent: --they cook in ten minutes.

Turney: Yes. The analogy with that pressure cooker idea is you put the potatoes inside the pressure cooker, and they cook in ten minutes. What's happening is at high pressure, there's high temperature. So the pressure cooker is really a high-temperature device, and it's the temperature that cooks things, so if it's at a higher temperature, it cooks faster. And temperature is the key word for kinetics, and that's all we're doing when you oxidize sulfides. The pressure is really providing an opportunity to run something at a high temperature, and the high temperature does things faster.

So I always used to say on the public tours, nature is oxidizing the sulfides in millions of years, and what we do inside the pressure vessel is the same thing, but we do it in eighty minutes.

Swent: Where were you giving this talk?

Turney: The normal public tours that would come through McLaughlin over the last seven years. You had to have a couple of stories like that to help explain what's going on.

Swent: This was after you were there as a--

Turney: After we were up and operating.

Swent: You had to do a lot of P.R. work.

Turney: Right. [laughs]

Swent: Which you had perhaps not anticipated.

Turney: No. We did a lot of P.R. work there, and that was a lot more than any of us ever anticipated.

Swent: I'm sure, yes.

Turney: But it worked out well. I think we established ourselves quite nicely in that community there, and gained a lot of respect for that proactive effort. Ray Krauss was quite good at that. He taught us all some very important lessons.

Anyway, the next thing on that--

Swent: Back to the pressure cooker analogy: now, you also had agitators. You stirred your potatoes. But I don't know anything--the letdown valve is equivalent to the little pressure thing that I--

Turney: Yes, I think on the top--

Swent: --you cool it gradually, you don't just open the top--

Turney: Right. I had to explain to my wife the other day, you've got to be real careful with that gadget on the top. One way to depressurize is to slightly tilt that piece to the side, and the pressure releases itself. The steam pours out in a regulated and controlled manner, unless, of course, that top piece comes off, and then you have a massive discharge, and the pressure will--

Swent: And then there's soup on the ceiling.

Turney: Exactly, and that's happened to us. The other important thing to talk about seals is the rubber piece that sits around the top of the pressure cooker. When you squeeze down the handle, if that ever has a problem in it, and I don't know if it's happened to your pressure cooker--

Swent: Oh, yes.

Turney: --then it spews out the side and you've got a hell of a mess. And that's happened to me, when the soup's been everywhere. Those seals are the same situation we would have in an autoclave. So wherever there's a penetration into the vessel, the seal is

the key thing--maintaining the seal and having it operate for a long period of time. We try to make them run for six to nine months at McLaughlin, so it's the key on the pressure cooker as it is on our autoclave. So you want to minimize the number of penetrations you have, because every time you've got a penetration, you've got a seal that you have to look after.

Now, what we're doing when you see that little rocker on the top and there's this small hole where the pressure relieves itself, that's essentially what a letdown system is. We do that in two or three stages. You basically have a small hole through which everything goes, and the pressure drops. Take it down to another pressure, put it through another hole, and the pressure drops. That was what was probably the key to this whole system. Now, as you've got--

Swent: Were you involved--you personally--in that?

Turney: Yes. That was the key part of most of the design work and the work we did with Davy, was trying to figure out what's the best way to do all that. That's what probably--that's what made the autoclave process at McLaughlin. That's probably the key contribution in making that work. That's the part that wasn't piloted, that's the part that was designed, started up, made to work at McLaughlin, and has become essentially the basis of just about all the pressure autoclave plants that have followed. The ones at Barrick and FMC, they're all a similar principle to that.

Swent: It has been widely copied, hasn't it?

Turney: Yes. That concept is a given for that letdown system. And everybody's improved on it quite dramatically, on what we had at McLaughlin. Although what we had at McLaughlin is quite simple still, it's worked very well for them up there.

So I think the only analogy that you haven't got is the agitation one. Really, the purpose of the agitator in the autoclave is you've got the normal seal problems, and now you've got an interesting seal problem, because you've got a device that's turning and it has to be sealed. So you've got a rotating shaft with the agitator, which penetrates the vessel, and that has to be sealed.

That sort of technology is available, but what was--a couple of issues is you've got the wetted parts, the parts inside the autoclave, are subjected to extremely corrosive conditions. When you elevate the temperature and you've got a little bit of acid there, you've got a very corrosive situation. So all the wet parts in the autoclave are made out of titanium. Titanium,

though, has an unfortunate property that under a high oxygen atmosphere, it will burn. So you've got to be very, very careful on how that's all put together.

But the purpose of the agitators is to keep the slurry in suspension, and more importantly, disperse the oxygen which is introduced into the autoclave so that the oxygen is well distributed through the slurry so that the sulfides can oxidize. Because at the high temperatures, the rate of oxidation is so high that it will consume all the oxygen, so you've got to get the oxygen in there so that it can get and do the job. You're trying to do it as quickly and as efficiently as you can because you want to keep the vessel as small as you can.

Now, when you asked the question a while ago, why do we have three or six? Well, the ideal is to have one vessel, but one vessel puts you at high risk, because if it's down, the whole place stops. Two would be better, and in fact we had two in our design for a while, but then we said, "Gee, if one's down, then we're going to have half the plant down." So it was compromised out at three vessels. You needed a particular volume, because you had to have a particular reaction volume, so that dictated the size that they are.

Other autoclaves that were built at around that time or soon after that, the FMC ones, they solved the problem with transportation by making them a smaller diameter but longer, so they look like a big cigar, whereas ours looks like a short, fat cigar. The ones that are currently being put out at Barrick are much larger. So it all depends on transportation and what your needs are.

Swent: So let's see. You did convince everybody that this was what to do. Then Davy came on board.

Turney: Really, the first part that Davy did, they got the parameters, and then they sized equipment out, and you then did the material take-offs and did some cost estimates. So an important part of the project was to come up with a capital cost for the project so that the concept could then be presented to the board of directors so that we could request funds to build something. I think what had been presented to the board was here is a concept that we were going to pursue, because we spent several million dollars just on process development. And then we needed to come up with a cost, and we had these preliminary numbers, but you needed to do some engineering so that you could come up with a good cost estimate. That was the first exercise that Davy did.

Then the next part was to take those designs even further and work it into a design, and then a procurement, and then a construction schedule and a plan to execute the final construction and management of the project.

Working with John Ransone and Davy in San Ramon, California

Swent: So where were you in this picture?

Turney: I ended up being seconded across to John Ransone's group. In fact, almost the whole metallurgy group were.

Swent: John Ransone was the project manager.

Turney: He was the project manager for us, and therefore he was the owner's representative in the Davy-McKee's office. He directly worked with Klaus Thiel, whereas Klaus Thiel directed the Davy team. John then directed the Homestake team, so we had a portion of Davy's office. If I recall, we had three or four little offices in an area to spread out drawings.

Swent: This is in San Ramon?

Turney: In San Ramon, which at the time we used to call "San Remote." [laughter] I was out there last year, and there's a lot more houses there now.

Swent: Oh, yes. Yes.

Turney: So what the routine was, we had a couple of apartments in Walnut Creek, and essentially lived out there almost--well, for over a year. The engineering effort went over a year, because the front-end part, the grinding and the CIP part, were designed together quite quickly, but the autoclave part of the plant evolved. We spent a lot of engineering hours working through that area. That was almost the last part that was designed, the last part that was ordered. It dragged behind the rest of the project quite a bit as we struggled with what we were doing. A good part of our effort was directed at that part of the circuit. We really put a lot of effort into that area. That was mainly my job. That's where most of my purpose was.

Swent: And this was still pretty much theoretical, wasn't it?

Turney: Yes, and then searching for materials of construction, how to build the vessels, how to line the vessels--that was a fairly international.

Swent: You mentioned something from Latin America--from South America. What came from South America?

Turney: No, South Africa, I think, was all.

Swent: Well, in another interview you said that there were a lot of ideas and innovations that came from the vendors, and I wanted to ask you about that. And also you said that there were materials from Europe, Africa, South America, and the United States. I didn't know what came from South America.

Turney: I'm trying to think, too. South America.

Procuring Materials from Europe, Africa, South America, U.S.A.

Swent: You said, "Materials came from all over the world: from Europe, Africa, South America, and U.S.A."

Crusher Casting from Brazil

Turney: Ah, South America. There were some castings that came from South America. I can't remember which ones. Might have been the crusher. The second crusher was cast in Brazil, if I recall.

Swent: Oh, really?

Turney: I think that was the case.

Swent: I was intrigued by that. The titanium was an item, also, that you had trouble getting?

Turney: Yes. At the time, titanium--you basically still had some pretty interesting demands for titanium metal, particularly tubing. It's always been, or has these periods of time when there's tight markets for titanium, and at the time we were putting this thing together things were quite tight. They're much looser now.

We experimented with--and there's a couple of titanium alloys that you had to look at. What we were after was a high

abrasion-resistant alloy, and corrosion-resistant, so getting those two properties together is quite difficult for titanium because titanium is actually quite soft. But interestingly enough, even in that area, the titanium manufacturers even developed some much more improved alloys specifically for this business over the last ten years, so a lot of what we learned in the early days has changed the type of materials that people have been using.

Swent: Where did you get the titanium from?

Turney: Most of the titanium came from the United States. Titanium Industries was one group. There's quite a bit of titanium made in the U.S. I can't remember the names of all the companies. I think Wah Chang supplied some.

Swent: And then the decision to get your autoclave from Germany?

Turney: What happened there was, once we had our design sorted out and we knew what we wanted to do, looking around on what was the best place to buy a lot of the equipment--and at the time there in the early eighties, the U.S. dollar was fairly strong, so we had an international--we went out on international bidding for this job. It was a big enough job to justify doing that. I can't remember the name of the firm in Germany, but basically the autoclave was built in West Germany at the time, and then lead-lined in Holland before putting on the boat and shipment to Sacramento. The reason we ended up going there was mainly because there was a dollar advantage at that time.

We actually investigated looking at a titanium autoclave as well, a solid titanium autoclave. Ruled that out. Looked at a couple of different brick-lining firms, and there was Didier, who had supplied quite a few of the brick linings into South Africa and some of the zinc plants along the Ruhr. We talked to Stebbins and several other firms. So it was a truly international selection of components that was really based on who had the technology to satisfy what we thought were the problems.

We even had a firm from South Africa. It might have been called Metplant--just a couple of consultants: Barry Watt and I've forgotten the name of the other gentleman. They did most of the calculations and the sizing of the letdown system in valves. We actually had the letdown valves made in South Africa. The non-return valves for operating the autoclave were all made in South Africa. They were essentially a design that had been developed by a fellow called Barney Burkhardt and Herman Pietese of Vaal Reefs. Herman is actually working for Barrick now.

It's quite interesting when you think about the players that were involved there. Half a dozen of them are still associated with refractory pressure oxidation treatment. It's quite a small group of people, really. It's about half a dozen names around the place, and they're all still busy doing the same things.

Swent: Carved out a little niche there.

Turney: Yes. It's created a real technology for people, real interesting things, because not just the metallurgy. Materials of construction questions we're talking about here are very unique. Most of us don't think about refractory metals and temperatures and pressures and acid conditions and extremely corrosive conditions. Some of the things that you would see, corrosion-wise, you would see pictures of in the textbooks, but you would never really normally see. We saw them all. We saw them all, I'm sure of it.

Problems with Viscosity

Swent: There was also something, there were clay conditions that came up? Am I right that the slurry was not the consistency that had been anticipated?

Turney: Yes. The thing that--

Swent: Now, of course, I'm jumping ahead to operation, and I really shouldn't, but you had to anticipate in your planning--

Turney: Yes, okay. One of the problems, and it was observed during the pilot period, is the clay and probably the gypsum that is formed with the oxidation in the autoclaves. We ended up having a very viscous slurry, so much thicker than normal for a carbon-in-pulp circuit. One of the key features of carbon-in-pulp is making sure that the carbon is evenly distributed through the tank.

Well, if the solution is very viscous and the density is wrong, then the carbon will either sink to the bottom or float on the top, and then with a viscous slurry, it's difficult to stir and mix and transfer oxygen as well. So that caused some dilemmas for the back end of the circuit, the carbon-in-pulp end, because you had to run it at a lower percent solids than you would like, which therefore meant more tanks to have more volume to have the residence time.

Swent: And meant more water, too.

Turney: And more water.

Swent: Which was a problem.

Turney: And water is always a problem in California. And it meant you were right on the edge of being able to suspend the carbon without having it just float or sink, or float in this case.

You're never really ever sure what happens inside the autoclave with viscosity, because you can never ever see it. What you had to do, and make sure you overcome there, was to put additional horsepower into the agitators on the autoclave so as to make sure the suspension was right. But just about all the tankage had much higher agitation than you would normally put in a tank because of the viscous nature due to clays and gypsum that we saw all through the plant, and during that pilot work, actually. So it was understood fairly early, incorporated into the design but not quite right.

Swent: But basically, your anticipations were all pretty much on target.

Turney: Yes. Looking back, what we saw in the test program and what we did in the test program, and eventually what happened in the plant, were fairly close. I think what we said was the objective of the test program, which was to understand the chemistry, and understand the consequences of the chemistry, was well understood. And that's proved to be the case. Every time in operations that we ignored that, we got ourselves into trouble.

The circulating solutions are key in this. Too many things end up coming back to the front end as we bring the solutions from the back to the front, and all the circulating solutions that are involved in a complex plant like McLaughlin have to be well understood. So there's always been a fairly strong metallurgical component in the day-to-day operations of that plant, a lot more than you would normally see in a mill, and that's had to continue and it continues to this day, and will until the place closes.

Little things are always a little different, so people have to be aware of that process chemistry as they operate the place on a day-to-day basis. But it proved out quite close.

Cost-wise, which is always a key thing in these plants, I think, from the operating cost viewpoint did very well. The improvements that were able to be made over the years in decreasing that operating cost were probably better than most of us imagined we could have achieved when we started out. I think

the mechanical maintenance costs came down over the years much more dramatically than what we thought.

Adding a Flotation Circuit Later

Swent: Not only that, you put in other circuits since your original plan.

Turney: Yes. Basically the basis was, let's treat this refractory material at 3,000 tons a day. One interesting one is the flotation circuit that was added most recently. From the early days, when we did the early test work and flotation, there was this patchy recovery. I think I mentioned to you earlier, when you look at the core numbers, you get some good results, some bad results. They were all over the place. So there was areas where it's quite possible to float and make a flotation concentrate and have some good recoveries, but you could never, ever guarantee that.

But what you'd learned after you started the mine was, we learned that you could identify those areas, and so mining and milling came together and they said, "Look, we could identify some areas." So there was an economic opportunity there, and that was pursued. It was a good, gutsy move. Some capital was made available, and you put in an autoclave, a flotation circuit, made a flotation concentrate, supplemented the ore that was running through the plant, and you were able to improve your gold performance by using--

Swent: So that ore bypassed your autoclave?

Turney: No, the flotation tails did bypass the autoclave, but the concentrates made by flotation, the refractory sulfides, were collected and then put into the autoclave. So what you did there was you were able to treat more ore and still keep the recovery high, and maximized what you had in the autoclave, were able to push the autoclave right to the edge on how much oxygen. That was always the limitation, so you used every bit of oxygen you had available.

The other part that came along was we always knew we had some free-milling ore, but how much? That was why the plant was then expanded with the extra grinding circuit and the free milling circuit. All those things came after startup to take advantage of the improved knowledge of the ore body. And that was really something that the mining engineers at the McLaughlin

property were able to put their arms around. Once the geologists and the mining engineers really understood what the ore body was about, they were able to say, "Look, some of this can be treated this way, and some this way," and that's helped the story at McLaughlin enormously.

Swent: There must be things in between.

Turney: Yes, and that's been the dilemma, trying to work out how to treat those. That will be the dilemma right to the last day.

Swent: Because the autoclaving is expensive.

Turney: It's expensive.

Swent: So now where are we?

Turney: We've talked through the process development.

Ceramic Agitators from Coors

Swent: And I don't know whether these are even topics that you wanted to mention. Vendors: you did say something about innovations that came from Davy and from vendors, and I was sort of wondering if there were any specific things that were important that they contributed.

Turney: Well, on one of the key things on vendors--we talked about agitators, and these agitators were initially made of titanium, and they were a flat blade. If you picture a flat blade turning through a solution, just a vertical piece of metal the size of a spade, turning through, they would wear out. One of the early attempts was by some people who actually put a titanium oxide coating on the material as a surface hardener.

And then, there was an idea of using ceramics. The people at Coors in Golden had some ideas on making a ceramic blade. The problem with a ceramic blade is, like all ceramics, if they're cold and you pop them in something hot, they would shatter, so with some care and attention, we eventually used ceramic blades. They've worked very, very well.

Swent: No coating?

Turney: Nothing. Just a piece of ceramic. It's worked well. The main advantage of it, it has nice sharp edges, so it causes all this

turbulence as it agitates, which is excellent for oxygen transfer. That's become almost a standard in the business as well.

Some very innovative ideas on lining systems came out of a fellow called Wilhelm Garde, who was with the Didier company, which was the initial supplier of refractory bricks and the mortars that were needed. Piping and other pieces with ceramic linings over the years were also some work that was done in conjunction with Coors. And probably more importantly--

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Turney: One of the important innovations that happens in a place like McLaughlin is the operators and the mechanics themselves come up with procedures and techniques and gadgets that improve the efficiency of operation. There was always a good atmosphere for that at that facility, and I think they did quite well at that over the last ten years.

Swent: There have been a lot of changes, even after you got operating, haven't there?

Turney: Yes. It's that sort of place that you set a base position to start with, but there were so many dollars involved in the operating cost that you were able to identify some specific programs, work at them, and cut your costs. There was a good atmosphere created there to do that. That still exists today, as people are trying to figure out what to do next with the equipment and ore types.

Swent: Would you like to talk a bit about the training? Or the startup itself? Or should we save that? Startup is usually a major hurdle.

Turney: Yes. Startup was really interesting at this place. It was a very phased approach. Do you want to talk about it now?

Swent: Well, do you think we have time? Maybe let's not.

Turney: Okay.

Swent: I don't want to rush it.

Turney: All right. Well, let's call it quits for a bit.

Swent: All right.

Explaining to Royalty Holders How Royalties Are Calculated

[Interview 2: September 30, 1995] ##

Swent: We were beginning think about the experimental work for McLaughlin. We had not gotten up to the operations phase at all. We might pick up a couple of things that you wanted to talk about a little bit more. You said you were up there last week visiting.

Turney: That's right. I went up with Dennis Goldstein, and we had to have a discussion with the Kauffman family and their lawyer concerning royalty questions on the checks that they've been receiving in the last ten years. Of course, with the mine nearing depletion, those checks will be coming to an end for those people soon, but it's been probably quite a marvelous source of income for that family for the past decade. Just a job Dennis and I had.

Swent: How did you happen to get in on that?

Turney: I was involved because the last time we had a discussion with the Kauffman family was when I was at McLaughlin, and the question that had come up was how--there had been a change in how the royalty numbers have been calculated. It was due to a change that we made in the refinery itself, because at one stage we used to make--we had two separate circuits there: we had a sulfide circuit, an oxide circuit, and had two separate bars of gold produced so that we could handle our metallurgical accounting function. And we had merged the two together. That had affected how the number to calculate the royalty had been calculated. Some lawyer on their part had gone through and seen and noted this change and wanted a further explanation, so we spent the day explaining it. I think everybody left satisfied. It's not unusual in these sorts of deals; everybody becomes quite nervous when you're playing around with gold and numbers and recovery, and you're calculating how many dollars they are giving you. No different from what happens internally in our company, I guess.

Swent: [bell rings] Oh, dear. There's the ship's clock chiming. I can't turn it off. [This interview was held in the Swent home in Piedmont, California]

So you had kept the production separate all the way through, up to separate gold bars?

Turney: Well, what happened was, initially the circuit was started up to treat the refractory component--which was always the sulfide ore --and then several years after startup, there had been identified

an area in the ore body that did not require autoclave treatment, so a separate grinding circuit, a separate pipeline, and a separate leach, CIP set of tanks at the treatment end was installed. We then ran these two independent circuits all the way through to the refinery so that you actually produced a bar of gold that had been produced by the autoclave and a bar of gold that had not been treated by the autoclave.

But when we installed a flotation circuit--and that would be approximately five years ago now--we then took the sulfides from one circuit, the low-grade or oxide circuit, and transferred that material across to the autoclave circuit. So the two circuits then became mixed together and joined together both physically, and therefore the production was physically mixed together so it became no point then in making a separate oxide bar and a sulfide bar.

As far as the royalty hold was concerned, there was essentially two royalty holders: the Kauffman family and then Wilder. How that worked was it was kept separate in the sense that there was a boundary line on the ore body itself so that on one side of that line, all that ore was associated with a royalty payment to Kauffman, and on the other side a royalty payment to Wilder. So when that material was mined, we knew how much gold or tons was associated with that, so that was put into piles. But you knew how much you put in there based on the number of trucks and the grade of the material that left that part of the mine, so that is then tracked all the way through until you generated a bar. And the royalty that's paid to those two owners is basically on, essentially, sales, so when you sold the gold bar, a certain percentage of that was payable in royalties. So you had to know how much was Mr. Wilder's and how much was Mr. Kauffman's royalty. It was quite a detailed calculation.

Swent: Very complicated, yes.

Turney: That's the problem when there are several royalty holds on one ore body. It becomes a logistics nightmare in monitoring all the numbers. A lot of data had been collected, and fortunately for computers with elaborate spreadsheets keeping track of all the ounces that came from those two individual properties, through the circuit, into the gold bars--even today there's an allocation between Kauffman and Wilder sitting in the tailings dam. A certain percentage is Kauffman, and a certain percentage is Wilder.

Swent: So if someone goes back someday and reworks the tailings--

Turney: That's correct. There will be a number associated with who's who there.

Swent: And this is in your bailiwick, as the metallurgist.

Turney: Part of it. I mean, the mining engineer's heavily involved in that because he's defining where the line is in the ore body from the survey data and his drill hole data and defining how many ounces are in the ground associated with each royalty holder. But from the metallurgical balance viewpoint, the metallurgist is involved because he is calculating the recovery as it's going through that circuit and how much gold is going into the bars, so he's quite involved as well.

Swent: I had never thought of that.

Turney: And the accounting department on sales. So it has always been a fairly complex effort to produce that kind of database and then explain to the royalty holders why and how come they're getting a certain amount of money at different times. We would mine out, for example, part of the Kauffman material, and it would sit in a stockpile on the surface. And we wouldn't process it, so their checks would go up and down according to when we processed the material. People want to know when they're going to get their money and how much will it be. So you could only estimate. It all depended on how well the circuit was doing and what the mining plan was. But in the end, all the material goes through, and they will all get their checks.

Keeping Track of "A Box Full of Blocks"

Swent: How did you know how to do this?

Turney: I think it's really quite straightforward. It's just a balance. All you're doing is--it's as if we had a box full of blocks, and we said that seven of those blocks belonged to Kauffman and ninety-three belonged to Mr. Wilder. Then we're going to take those blocks out of that place and do something to them and make gold bars. Well, we just had to remember when that particular block from Kauffman was going through the circuit. We chopped the little blocks up; sometimes we put it on the side, sometimes we put it through. We just had to track that all the time. So it's just a tracking question.

Swent: Is this ever taught in a course at the university or--

Turney: No, I think you probably learn about royalties--how to track and monitor them is unique to each mine. Usually they're not too complicated because you usually have one royalty holder. In this case there was a line right through the middle of the ore body--well, not really; actually, most of the royalty belongs to Wilder but there was this section on one corner that belonged to Kauffman. Not unusual. You know, there's a very complex formula even at the Kalgoorlie Mine that Homestake has. In that case it's disproportionate sharing, which is even more complicated.

Swent: Depending on how long they were able to bargain on it?

Turney: Exactly. So usually it's how the royalties are defined and how they wish to have it paid. Usually they're on net smelter return, which is referring to the final product that's sold, so that eases the sales part. Then the only hard part to agree on is what's defined as whose block it is. The problem comes in when you look in the ground, you draw a line across it, and you say, "Okay, I've got one hundred ounces in your area here." But when you pick that up and put it through the mill, you actually find that there's 105 ounces. So it's not quite right. So you've got to then say, "Okay, if the ratio is 93 to 7 percent, then now I've got to divide 105 ounces in a ratio of 93 to 7 percent on 105 rather than on what I thought was there, which was one hundred." So the metallurgist is the only one who really knows that because he's measuring what came into the plant and what went out. So that's where it becomes complicated because you've got in process inventory questions, and you've got bars here, and you've got gold in the tailings, and you've got solutions. From a legal viewpoint, you've got to use your very best effort to track and determine, and measuring natural systems like that is not that easy. It's not like pulling out the tape measure and measuring something and saying it's 6.7 inches long.

Swent: No. And who checks on you? Is it just you and your conscience?

Turney: No, I think it's fairly well done in the sense that you've got one check in the sense that the mine is making an estimate of what they think is coming in, and the mill's checking what they measure coming into the mill and what went out the other side. Then you have the ultimate check which is how many bars you produced. Then this all has to be added up and matched and checked. So the engineering people both in the mine and the mill are generating those numbers, and then internally the accounting department is given the task of reconciliation on that.

And the person who built the model and the spreadsheet to make sure that this was well tracked and that there was checks and balances in here was Knollie Sell. He built the spreadsheet

to try to show that this was all correctly done. Then, of course, the royalty owner themselves is usually a diligent person when they're receiving checks for several millions, so they would have somebody look at that and demand explanation of how that was worked, how did you calculate that. And in fact, this last exercise last week was exactly that: they wanted to look at the spreadsheet, look at the program and understand where the numbers came from and why. That's normal and expected.

The Trick of Proving That You Are a Good Corporate Citizen

Swent: It just occurs to me, though, that this is all the kind of thing that I would guess you, as an undergraduate studying metallurgy, don't anticipate ever getting into, do you?

Turney: No, you never think of those things. I'm not sure the stuff I'm doing even now--it bears no relationship to what you thought you were going to do. You just don't appreciate that at all.

Swent: The human relations aspect of having to deal with an upset royalty holder would never--

Turney: It doesn't occur to you. Nothing occurs to you. What I've done the last three years, I would never have thought I would have to do that. [laughs]

Swent: There are human skills that get involved even in a highly technical profession.

Turney: I think so. Even more so today than ever before because where the mining industry now sits--the problem in the business is we get so wrapped up in thinking about how important it all is, but what's happening in our community is that it's a distant memory for a lot of people. They knew family people who were involved in the industry, and we're now in the more remote parts of the country and not very visible. From a percentage of jobs and gross domestic product relative to the other activities in the economy, we're quite small.

Swent: Mining, you mean?

Turney: Yes. So if we disappeared, it wouldn't affect things that much. We think it would, but when I think of Intel--just down the road here--with 4,000 or 5,000 employees in one facility, a company like that that has got a market capitalization bigger than all the gold mining companies in North America. We're small

potatoes. As a result of that, we have to deal with people, and we're not regarded as a provider of jobs and a wonderful thing; you've got to justify yourself and prove yourself and show that you're a good corporate citizen.

I think we have a new mine in Ruby Hill at the moment in eastern Nevada. A good part of the activity of the general manager and the mine manager there is talking to the people in Eureka, making sure they have a good understanding of what the project's about and what their concerns are. The technical aspects of mining that ore body are probably quite well understood and we could probably do a good job at that, but the trick is going to be whether they can do a good job at the public relations that is required to maintain our business. The focus of the whole company is that way. Mr. Conger and Jack Thompson are all having to focus on those sorts of issues--much more than any of us thought probably we would have to do when we all started out.

The Work at Eskay Creek, B.C. and the Aboriginal People There

Swent: We are jumping way ahead, but you said the sorts of things you've done the past three years--is this the kind of thing you've been doing?

Turney: Well, when I left McLaughlin and I went up to Canada, I was involved in the Eskay Creek Mine. The Eskay Creek Mine is located north of Stewart in British Columbia, so it's way north. It's quite close to the Yukon border. It's in the traditional area of the Tahltan nation, which is an aboriginal group.

Swent: How do you spell that?

Turney: T-A-H-L-T-A-N. The Tahltans are an aboriginal community based around Telegraph Creek, is a famous mining spot which is where people headed into the Northwest Territories and the Yukon.

Swent: A hundred years ago?

Turney: A hundred years ago. It's where the steamboats came up and dropped them off and they headed up into the mountain. Dease Lake. What we had to do up there was spend a lot of time talking to the chiefs in the various villages because the aboriginal community in Canada is very vocal about their land rights and positions. The intrusion of the European into that area has been around for a hundred years, but it's quite noticeable at the

moment, and they're in a much stronger position to argue with the mining companies and other intruders--as they see them--than ever before. Probably no different from what happened in the Dakotas a hundred years ago. This time, though, there's a lot more consideration, probably, by the mining companies--and the government, for that matter--on disruption to people's lives, et cetera.

And it's interesting dealing with them. They saw it as--split down the middle: some seeing it as a disruption and others seeing it as an opportunity. Talking about that and trying to tell people what you're doing and the good faith and the professionalism of our company is really important in dealing in these places. Something, as you say, not that I thought I would ever have to do. [laughs] But that's what made that project. The ore body was there. It was a very good ore body, but being able to move the permitting process through and get a permit so that we could build, construct, and put it on line, was very dependent on our ability to appease the concerns of the local population.

Swent: That's a whole new ball game, isn't it?

Turney: It's all new, and it's growing. It's a key part, and I think the types of people who are going to be the mine managers and general managers of the properties today, you sort of look at them, and you see the skill sets that they have are quite different than the skill sets that we expected of mine managers just twenty years ago. It's because of the external dimension which has become very significant. The ability to operate is now a function of your ability to communicate and run your operation in a professional manner such that you're seen to be a good citizen. That's all over the industry; it's not just Homestake. I think all companies are behaving that way because of the realization that that's how you stay in business--having to be very proactive and very up and outgoing.

The Proactive Approach at McLaughlin: Thompson and Krauss

Swent: Well, let's get back then to McLaughlin because I think they were one of the pioneers in this.

Turney: I think it was probably very well recognized and understood very early in the piece that McLaughlin, being proactive in the community, was the way to get a permit there. That was done that way, and the way that project was structured relative to Eskay

was quite different. Jack Thompson was brought on board as general manager, and he had essentially Ray Krauss. And their primary focus was developing a strategy and making sure that the permits were forthcoming for that project.

Swent: They were already hired before you, were they not?

Turney: Jack started just after I did.

Swent: You came in '81.

Turney: Right, and Jack started in '81, but after me.

Swent: Oh, I see.

Turney: He must have started near the middle of the year in '81, and I started on January 26. Ray must have started after that, I think. I can't remember exactly. Ray must have started around the middle of that year as well because they set up office out in Napa County. That was where Jack first started out.

Swent: You were still in Colorado.

Turney: Yes, I was in Colorado, and at that stage we were doing test work at both Hazen and Denver, and we just started a program in Edmonton with Sherritt Gordon. Richard Kunter had been working on the project for the previous year and a bit, probably, and his relationship was mostly with a fellow called Don Gustafson, who was the key geologist, the project geologist, out at the site. So Don was essentially in charge of the project, and he reported to Jim Anderson. We were all under Jim Anderson's direction. In fact, when I was hired, my interview was with Don Gustafson and Richard Kunter. I had gone out to see Don Gustafson and spent a bit of time talking to him. We used to go out and report to Don about what we were doing with the development effort.

Swent: Where was he?

Turney: He was always at the site, and he used to come to Denver, and we would sit down at the table, but a lot of times we used to go out to the site itself--no, out to Napa--and it was in the office that Jack was in because we would sit around the table there. We would go over all the project bits and pieces concerning environmental impact statements, and at that stage looking for places where we could get water and where we could possibly put a tailings dam--some of the background bits and pieces that had to all be done before you could even start engineering and planning, just trying to understand the area.

That was an area that Jack Thompson had a big influence and big input into: trying to understand what could and couldn't be done. At that stage, I think the environmental consultant who was helping us was a company called d'Appolonia. I don't remember the name of the principal that we interfaced with.

Swent: They did the studies before the environmental impact statement?

Turney: Right. We had to have all this background information on flora and fauna and hydrological data background checks.

Planning for Environmentally Safe Discharges

Swent: So you were in on those discussions?

Turney: A little bit, yes. It's part of my contribution to then explaining where the test program was at that stage, and talking about the latest results from Dawson or Hazen and what we're planning to do. We were also spending a fair bit of time discussing what would be the environmental consequences of the various processes that we were planning. There was always a question of what will be the discharges here, what will come out of it? It was important that we understood what the environmental considerations were because that meant there were certain things we would have to measure in the test programs to provide data to d'Appolonia so that they could start thinking about what we could and couldn't do.

Roaster Versus Autoclave

Turney: At one stage, we were looking at a roaster. We did a lot of test work on roasting. Roasting could have treated this ore body, and we would have gotten a recovery--although not as high as what we would have gotten with pressure oxidation--but what we understood and found was that the scrubbing system on a roaster to remove the mercury would have been complex, costly, and risk-wise much higher in people's perception of such a circuit. Mercury in vapor was very negative.

A good part of the push for the autoclave operation that we had was driven by an understanding that was developing at that time about what you could permit and what you could get permitted. Although it had good gold recovery, a good part of

the logic was involved in the fact that you're able to make a stable tailings, and that you had zero gaseous emissions. It was a fairly benign type of process. That melded into the strategy that Ray Krauss and Jack Thompson were able to then use as they talked around the communities in Napa and Lake and Yolo Counties about what we were planning there. So they had to understand what the process was about so that they could talk to the general public about it.

That was very early in the piece; probably before we even knew for sure that we were going to have a pressure oxidation process. We knew the idea was good and it fitted the framework of what those people had come to realize we could permit and get up and running.

Swent: As I talk to people, it seems that there was a tremendous excitement and a very heady feeling at that time. It's hard to recapture now, I'm sure, but the price of gold was so high for one thing, plus the new techniques--

Turney: Yes, I think that for Homestake--we had come off that \$800 an ounce, the company was high in cash, and there was a very active exploration program. The find in McLaughlin was significant because at that time a three-million-ounce ore body was big news.

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Turney: And then to realize that it was difficult to treat, to a certain extent, was a big disappointment because that then meant tremendous additional capital. But I think why it was partly exciting for the company was there really hadn't been much done in new gold mines. I mean, the whole company was centered around the Homestake mine, and here they were branching out in a so-called difficult place to do business because of environmental perceptions. And then here they were with this problematical ore body that most people who had seen these types of things said, "Oh, well, let's walk away from it," and the decision was, "Let's have a go at it."

The sort of people that were brought together were all from different other companies. There was a fairly free hand in, "We've got a problem here," and, "This one's different. What are we going to do?"

What's happened since then is operations like McLaughlin--I think there's six or seven of them now. On top of that, I guess the last decade we've seen such tremendous growth in the gold industry in Nevada and Australia, and in Canada for that matter. It's become a bit more routine. A lot of us who were coming from

the other industries--nickel and uranium and copper--had all this initial enthusiasm for something that was so different.

Amax Responded to Problems at Mt. Emmons in Colorado

Swent: You had run into the environmental problems at Henderson.

Turney: I worked for Amax, and the biggest environmental issue I was involved in there was with the development of a mine called Mt. Emmons in southern Colorado. There was a very active community effort against that mine. It was right at the back of a ski village called Crested Butte. We actually built a water treatment plant there to clean up the water that was discharging from an adit that had been there for maybe twenty years.

Amax developed a similar set of skills in being proactive--and quite successfully, really. They built quite a showpiece at Henderson. Climax was always a problem, but they managed to control that situation with a tailings dam upstream of the Dillon Reservoir, which was a water supply for the community of Denver. That's a very well-managed situation.

I think what was different here at McLaughlin relative to that was that down at Mt. Emmons my involvement was with the water treatment plant, but as an observer watching how the environmental people were dealing with the public perception. They were responding to problems, whereas the people who were involved in McLaughlin basically said, "Okay, there could be problems if we do this, this, and this, so let's take this type of approach." So there was a much more structured way of working through the permitting process.

That's probably due to the type of people they had, the sort of thought patterns that were there. You had Ray Krauss, who had a very good understanding of the government side of the issues and the sorts of issues that the public would raise. And you had Jack Thompson, who had a good understanding of what you could do in the mining industry and a very proactive attitude towards reclamation and those sorts of issues, plus a forward way of thinking. He was very capable of giving a vision four or five years out and understanding where you were heading and projecting that on everybody. We all understood quite clearly where he wanted to go. That was a little different, and that is probably now more typical of what people do when you start up a new mine.

The same sort of approach was applied at Eskay Creek in Canada, and my observation of other companies is people doing a similar sort of effort. A very similar sort of effort is being done at Ruby Hill.

Swent: These were both very young men.

Turney: That's probably why they had an advantage. The business changed. There was a step change in how they looked at the business, and Jack probably represented the beginning of the new sort of manager who had to have some knowledge of environment and public relations as well as the mining and the geology and the processing. The skills were probably understood by their predecessors, but the importance of them is much higher now than they used to be. You can't have a mine just because you got a good ore body anymore; you've got to be able to mine it. That's a different ability.

The Important Role of Metallurgist Richard Kunter

Swent: Was there more that you wanted to say about the process development and Richard Kunter?

Turney: Yes, I don't think we talked about him very much last time. Richard Kunter was a metallurgist that brought a different perspective to this project. Richard was a metallurgist in the traditional sense: one that was very familiar with mineralogy and microscopy and looking at the minerals themselves and understanding what's going on. Richard had worked in Australia in Kalgoorlie--actually, Western Mining--and he had been involved in a very strong mineralogical sort of group there, a very fundamental sort of metallurgical development.

Swent: Is he Australian?

Turney: No, Richard's actually from Idaho, I think it is. He's an American. He's married to an Australian lady. There's quite a few people about that period of time--because Richard must be nearly fifty--so probably when he came out from school there was not too many jobs around so lots of people went to Australia at that time. Richard was one of those.

Richard had a good understanding pretty early in the piece that this gold was associated and trapped with the sulfide sulfur, and he had physically seen that by looking in the microscope. He had been involved in a small metallurgy group

that Homestake had established in Golden [Colorado], working with a fellow called Doug Halbe. He was a good interface with the geologists. The geologists were out there looking for these new ore bodies, they would bring some samples in and want some test work done to find out what sort of recovery, and Richard was excellent at helping those guys with sampling techniques and interfacing with them.

So what Richard did--he was able to explain very early in the piece that here was an ore that was quite different from they were traditionally used to. What gold mining people are traditionally used to is something like Lead, South Dakota: you basically get the ore, crush it up, add a bit of cyanide, lo and behold, you get 90 percent recovery of gold. Quite straightforward. This particular ore didn't behave like that at all. He had to spend a fair bit of time explaining to the Don Gustafsons and the Jim Andersons why, and then the alternatives that we had.

Swent: Why did he need to explain it to them?

Turney: Because the geologists would have been familiar with the norm, and the norm was you would do a bottle roll test, which is traditionally what they do. What would normally happen is a geologist would go out in the field, he would take some surface samples and say, "Oh, this looks like a good area." They would drill a few holes, he sees some mineralization, gets very excited, and then does some projections and says, "Good heavens. There's a million tons of this here. Wonder what the metallurgy is like." And they ask that question because they wonder can they make a flotation concentrate and sell it or can they direct cyanide [treat] it or what can they do?

They always assay it and find out how much gold and silver is there, but one thing they like to do is they crush it all up, put it in a bottle, and they actually roll this bottle on a set of rollers, and there's some cyanide in there. Then you sample the solution and determine how much gold transferred from the solid to the liquid. It's usually 90-odd percent. And if it isn't 90 percent or some number like that, you would say, "Gosh, this is a problem ore body," and they use the word "refractory". And they want to know that. And they hadn't seen that many of them at that point. And if you did see one, you had a tendency to say, "Well, you can't treat that. Let's go look for something else."

What had happened at McLaughlin was they found this thing and it was so big you couldn't walk away from it, so they then would have said, "If it is refractory like you say, and we're

only getting 30 percent recovery, what can we do? The grade was so good; there must be something we can do here. Can we make a flotation concentrate and sell it to a smelter? What can we do?"

So Richard would have been explaining these other alternatives. And they need some rough feedback so that they can get some cost ideas to see if you can justify whether there could be a mine here. This is the preliminary--the very, very beginning of finding ore bodies.

Swent: If you assay it and you find that there is x percent of gold, what's different from the assaying and the treatment of it?

Turney: Okay. Let's just take an example. Just because we've got some ground and it's got some gold in it, it doesn't mean we have a mine. What makes the mine is, "Can we dig that material out of the ground? Can we process it, make a gold bar, and make a profit?"

Now let's think about what we have to do to define whether you have an ore body. If that ore that we extract is very deep in the ground, then immediately we would say we would have to build a shaft, build access, and go get it. That will cost x number of dollars to a) build the shaft and go underground and get it, and then we bring it to the surface, and then we'll have a cost to process it. If, for example, I just have to grind it up, add some cyanide and get some gold, then we know that that's going to be fairly cheap: maybe four or five dollars a ton to do that. If it comes from deep underground we know that will be fairly expensive: maybe twenty dollars a ton. So depending on how deep it is, where it's at, and how big the ore body is--because if the ore body is fairly large, then we can get size on our side and have something big, so we've got a hundred people working, and they're working to exploit a resource with three million ounces in it. If it's only small, and we've got a hundred people working, then they're exploiting maybe something like 300,000 ounces. It would be very expensive. So in the end there's a certain number of dollars associated with just getting the material out of the ground and recovering it.

Right from the beginning, as soon as a geologist heads out into the field, there's a concept of how much it will cost. Going to Nevada, we know that having a mine in Nevada will be a lot cheaper than having a mine above the Arctic Circle. So I could say that if I was in Nevada, and I had a close-to-surface ore body that could be open-cut mined and it's got .03 ounces a ton of gold in it, and there's a lot of it, I might be able to have a heap leach, process that material, and make a profit. If I've got the same ore body and it's located above the Arctic

Circle, all I've got is an interesting geological anomaly. But if I've got an underground mine up there that's got two or three ounces per ton in it, and it's deep underground, and it's reasonable size, I've got an ore body in the Arctic Circle. If I had that same thing in Nevada, I would have a bonanza. And that's the difference.

Swent: So you had to be--

Turney: What these geologists are doing, even at McLaughlin, is all the time they're defining that ore body and understanding whether they should drill further or what you could do there. That sort of feedback information had to come back, and Richard was very heavily involved in that at the beginning. When I started, the ore body was only about half the size of what was originally defined. I must have been on board a couple of months, and then it was announced that, indeed, the ore body that we know that was there today was as big as it was. So it doubled. It was really interesting and looked like a good project, but then I had been on board about two or three months, and yes, it was really a go.

Honestly, when I came on board the discussion I had was, "Well, we've got some problems with this thing; maybe you can get involved. I don't know where it will go, but you'll definitely have a job here for a year or so." Indeed, it was longer than that.

Richard also was responsible for the first autoclave test that we did at Dawson. Dawson or Richard had discussed, "Maybe we could pressure oxidize this." They ran the first very uncontrolled sort of test just to see whether you could do that, so the concept was there when I came on board. There was really no measurable data that you could sort of use to say whether this was a process or not. My job was to figure out how you could really treat this stuff, what were the parameters, what were the pressures and the temperatures, and how would you do this, and then try to figure out how to design it.

Learning About Autoclaves in South Africa

Turney: We quickly figured out that we really didn't know how to do that properly, so we had to go talking to everybody. That's why the trips to South Africa. I think I had been on board about six months, and I went down to South Africa and was down there for a month, actually. It were purely an education function, trying to understand how did these people size and figure out these other

autoclaves in this different application? What did they do to work all that out?

That was at the same time we got tied up with Sherritt Gordon to do the development study and the piloting effort that eventually became the data information that was then transferred to Davy International to design the system.

Swent: And the ones in South Africa were with uranium, and Sherritt Gordon had worked with nickel. Is that right?

Turney: That's correct. Sherritt Gordon's expertise was nickel, with what they call an ammoniacal leach, where they used ammonia to leach the nickel. And the ones in South Africa, chemistry-wise, were similar in the sense that they were oxidizing sulfides. All these reactors were oxidation reactors. Even in the uranium industry you're doing something quite similar, so I had some familiarity with that from the Grants [New Mexico] operation, albeit at much lower temperatures and pressures and much lower percent solids, reactors. We were trying to do something that was very radical in the sense that you had 40 percent solids in a reactor, and then you were going to just let this thing down from a high pressure to a low pressure through a valve. Nobody did anything like that, nobody. Not even Sherritt.

The Innovation: Continuous Treatment of an Exothermic Slurry

Swent: Sherritt was doing batches.

Turney: No, they had a continuous system, but it was mainly solution. They essentially put things in a reactor, and everything dissolved. So you had a liquid. What we were going to do was-- we still had a liquid with a lot of solids in it. We had an exothermic reaction which generated a lot of heat; that's what exothermic is. We had to dissipate energy. We had to convert the energy from pressure into temperature, and we did that by changing the phase--you turn a liquid into a gas; that transfers energy from the liquid to the gas. So we basically had to come up with a system that managed that energy, and that's what the let-down system that we had there was all about.

That was probably the innovation. That was the change, commercially--putting that into production. That changed the whole industry's ability to treat these refractory ores, because before that people couldn't do that, and they weren't sure how to do that.

We probably were able to do it because we needed to have another ore body. The pressure was on us from the corporate office to do that. We had this asset that had a lot of ounces in it, and the company was at a point in time where it was quite happy to do something new and different. Harry Conger was willing to take the risk, I would say. I would say the corporate people said, "Yes, let's let them do it." Materials of construction and various bits and pieces that were available--we were at a point in time where they were available to do that. Just a fairly unique set of circumstances. Plus a group of fairly young people--maybe they didn't know any better. So that started it.

When I go out to Barrick, and I've been out to First Miss, I look at what's there--

Swent: To what?

Turney: First Mississippi, which is the autoclave operation over in Getchell. I look at the system, and you stand back and look at it, and it isn't much different to what we've got. The principle is the same, the materials that people are using are the same. The latest autoclave is at Lone Tree, one of Santa Fe's. The principle is the same, but something that's ten years later has got lots more bells and whistles and much neater layout and design, and it's quite good to see the latest evolution. Like cars ten years later, they're a little bit better. So you know, everybody else has now added lots of new ideas on that, and it's come into a good, safe, standard, recognized operation.

Kunter and Turney Process Patented

Swent: You mentioned patents. You patented--

Turney: Yes, Richard and myself have a process patent on the autoclave operation. What that is is basically the system that consists of the autoclave, the let-down system, the washing system, and then generating material that's suitable for cyanide treatment. We were able to get a patent on that, and that was important because what concerned us more than anything else was when things like this happen in the mining industry or any industry, sometimes you're not able to use the patent to generate revenue from other users, but just as importantly, you're able to protect yourself from somebody else who then takes out a similar patent and then ties you up in litigation by saying that you're infringing their patent. So in this particular case it was for protection. I

think we could have pushed that we had something that nobody else had but it wouldn't have taken too much to make minor changes, and some good lawyers would have been able to prove that this indeed was a modification of what the original one was so therefore doesn't infringe the patent of Richard Kunter and John Turney.

Homestake's Century-Long Tradition of Metallurgical Innovation

Turney: The exercise for us, I think, was more one of protection, but I think it also showed the industry: here is Homestake continuing a tradition of innovation in the metallurgical and mining industry. If you look at what's happened in our company over a hundred years, there's been steps of innovation all along. The CIP first installed at Lead, the Dorr-Oliver thickener, Merrill-Crowe--I think Merrill was a metallurgist at the Lead mine. There's a tradition there of innovation at different times, which is kind of strange sometimes because I think Homestake is viewed as a conservative mining company, yet there's been periods of innovation in its history.

Roger Madsen's Contribution as a Mechanical Engineer

Swent: This might be a nice place to tuck in, a propos of not much of anything, the little anecdote or incident you were telling me about Roger and the--[laughs] Let's put that in.

Turney: We should talk about Roger Madsen because Roger--again, when you think about all the people that were involved in the project, everybody had a different viewpoint. Roger is a mechanical engineer, and Roger's viewpoint is--he's one of these gentlemen who is very good at sitting down and calculating and working out different things. His issue was, when he first heard about what we were planning to do, "Good God, do you fellows really understand how much energy is involved in this let-down?" He calculated it out and was talking about this tremendous amount of energy that would be involved. He came down to South Africa with us on the second trip, and he just couldn't believe that anybody would really do this. This was a dangerous thing to do because there was so much energy involved in doing this.

So we spent a fair bit of time talking about that, and I remember giving him this process control book to read which was

discussing these type of let-down systems. He took a bit of interest in it. I must have seen him about three weeks later, and here he is, and he's got the book, and he has decided that this is quite a good book now. He had finally come to grips with what we were thinking of doing, and he became probably quite an expert on understanding the sizing of the let-down and the flash vessels in those sections. In fact, during the Davy design days, Roger had quite a bit of input into checking and questioning the fundamental assumptions in that area.

As I was saying before, it was just another example of all the different experiences that came to play when you do something that hasn't been done before. If it's been done before, you tend to replicate what's there. People copy it and modify it and improve it a little bit. But when you head into a new area, everything's questioned, everything's in doubt. Everybody gets very negative about it all as you question each other, but at the end of the day, if that questioning has been done well, something works. And this one worked. So the questioning must have been reasonable. [chuckles]

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Swent: You must have made several trips to South Africa.

Turney: I must have gone down four or five times over a period of three or four years.

Swent: You couldn't just copy what they had done?

Turney: No, because they were doing something very different. They were in the nickel and uranium industry, and most people were using much lower percent solids--just a solution. They just had solution, and that was what was different.

Swent: Somebody that I talked to said that at one point you visited--I don't know if you were there or not--but there was an autoclave that was in South Africa that had been built but never used.

Turney: Yes, that was Afrikaaner Lease, and that was a similar concept to what we were looking at doing. What they actually were going to do was have a series of individual what they call "pots", four pots altogether; whereas the one that we built, the big cigar one had four compartments inside the cigar. So this was to be a series of pots, and they looked like these big round vessels, and they were going to be all connected up in a row. They were sitting there, but they've never installed and put it all together. Basically the uranium market had changed.

That would have been the closest idea, but we could never-- we didn't see how something like that would work. And I guess maybe that's been proven out because nobody's done it that way. Everybody has done what we did: built the cigar with the one unit. The design of that was very, very complicated because of the expansion that was involved between the vessels. In their case, it was a lower temperature, so they wouldn't have had to deal with as much expansion of the metal. What has happened in autoclaving now is they're running with even higher temperature and pressure. That's what's different: it was the temperature and the pressure and all the high-percent solids. It's quite different.

Setting Up Basic Work Training Programs in Lake County

Swent: Do you want to get into the--I had a note here on viscosity and then training. We haven't gotten to training and startup and the changes in operation.

Turney: Maybe I'll talk about training for a little bit.

Swent: Okay, and then viscosity came later, I guess--the problems with that. Is that correct?

Turney: That would be correct. So I'll just talk a little bit about training.

There were a couple of levels of training. The first part-- we discussed earlier about the proactive stance--one of the key things was to maximize employment locally in Lake County. That was quite a selling point to that community, providing local jobs. In order to do that, we had to get the skill levels up of the local community so that they could participate in the jobs that would be available during the construction stage.

Swent: This is primarily Lake County--

Turney: Essentially Lake County that was directed at.

Swent: Tremendous unemployment there.

Turney: Yes, and a very different sort of work ethic. Skill sets were very poor. They basically related more to the rural industries-- the vineyards and the pear and walnut orchards. So not a lot of opportunities.

So what was done was a setup with the community college there--I think it was called Yuba--one of these two-year sort of type of colleges. A trade program was set up to teach them basic construction skills. There was some carpentry and welding, and other courses were done. People were then encouraged to come in and participate in those classes, build up some basic skills, and then were hired into the construction firm during, essentially, the two-year construction period where there was a very large number of jobs and employment opportunities available. Then out of that, some of those people ended up rolling over into the operating part of the company.

That was successful in the sense that it definitely demonstrated to the local community that we were going to be involved and try to provide a benefit into Lake County. It also obviously changed the way of life for a lot of people who were in that area in the sense that they got some skills and got their foothold in the working environment in an industrial setting--much higher-paying jobs than what they had been traditionally used to. So that was that part of the training.

Training Selected Workers for the Process Plant Startup and Later Operation

Turney: The other part of the training, and the training that I was involved in, was the actual training of the operators themselves for the startup and the eventual long-term operation of the facility. We hired a company called Performance Associates, which was a small startup group at that time based here in the Bay Area--I think over in Danville somewhere.

Swent: Is that the--was Connolly with that?

Turney: That name rings a bell. There's a fellow called Steve Brown who was one of the principals. These people were ex-engineering firm, ex-operating people--I think maybe four of five of them. They basically sold a product which was putting together operating manuals, essentially. In other words, they would look at the drawings and draw out an operating manual such that the operator could understand how to operate it, and the foremen and superintendents and everybody else could understand how to operate this facility.

Use of Operating Manuals and the Plant Model

Turney: So we spent a fair bit of time drawing up those operating manuals and writing those manuals. I used to come down here and sit down in the Danville office with them and we would go over the manuals and the diagrams and the control schemes and make sure we understood and had something that was explainable to the operators. That was going on a good year before the training program started. There's quite an exercise in that. And this company also provided the computer software and the training involved for the maintenance program at that facility.

What happened then was the manuals were all brought up, and we slowly brought on operators. The first group of operators were brought on and went through approximately a six-week training program--four to six weeks, quite extensive, and that was covering everything from safety and what the project was all about, the process, and then how control systems worked and how particular unit operations work. So they were divided up into--this fellow was going to work in grinding, or this one was going to work in the autoclave, or this one was going to work in leach carbon-in-pulp.

And we would have sat down with the foremen, with some people from Performance Associates. I was involved, several other metallurgic people from the Golden office were involved, and the superintendents and general foreman of the operation were involved. They were essentially blackboard discussions where we would explain how something physically worked. We would stand there and explain how a level control would work to somebody who had never seen a level control in a tank, and how the computer system would interface with that and what it was actually doing and what you were seeing on the screen. We actually built a simulator which simulated the autoclave process. It was a very fast reacting model. But the operator was able to look at all the controls and could vary what was coming in and out of the autoclave. He could shut off and start up pumps, and he could generally do all that before he was really operating the real gear.

There were several different standards of people that we had come in. Some people had some experience in operations, so they understood all the controls and those sorts of things. They just weren't familiar with this particular operation, so they were quite good at being able to be given some reading material and then sit down with them and quiz them and try to help them understand what was there. We also had a very extensive model of the facility, and that was used also for training.

Swent: Is that the one that's still there that they use for tours?

Turney: For tours, but its main purpose initially was to train the operators. So you would actually sit in the classroom and talk for a while about the process. You would walk over to the model --and every valve and every pipeline is on that model--so you talk about, "Okay, how are we going to fill this tank, and what are we going to do?" You walk up to the model and say, "Well, open that valve there," and point to it on the model, trace the line along and say, "Then you'll discharge into this tank here, and when that tank's full it'll overflow to this one." You would spend your time looking at the model, and then you would actually go out into the plant--it was under construction then--and you would look and see where everything was and where that valve was.

Then they were given exercises to do. The valve was labeled on the model, and you'd say, "Let's get a label and put it actually on the valve out in the plant," then you would walk out with them and say, "Okay, let's go through that particular exercise." What you were doing was conditioning a group of people, and you can't do it to a lot of them but you had a core group that were very familiar where everything was so that you are prepared for the startup--so that you could say to somebody, "Go and close so-and-so valve," and they knew exactly where it is.

Some Job Candidates had Previous Operating Experience Elsewhere

Swent: Were these people that you had already committed to hire--who were already hired--or did you do some of this before you selected--

Turney: No, the foremen selected the operators. They interviewed a group of people, and a lot of the people we interviewed were experienced operators. There were people that had previous operating experience from other operations. As I say, there were a couple of people who came up from our Creede [Colorado] operation, and quite a few we brought in from other operations. Some had been working in the copper industry in Arizona, particularly in the grinding area. There were several who had come from the uranium district. And the foremen were all well-experienced people who were in their mid-forties. They had been working twenty-odd years in the business, so they were able to pick up a couple of operators each from somewhere. So that formed a core group.

Some Showed Promise in the Construction Phase

Turney: In addition to that, they interviewed people from Lake County who had perhaps worked out at the property during construction. We'd say, "I think this person might be able to learn and be a good operator." That group was brought in as well, and they had never operated anything like this before, so you had to run through some very fundamental issues like how to turn a pump on and off, what priming the pump meant, what to listen to in the pump, the safety considerations of dealing with high voltage, and what switch gear meant, what motor control centers are, what a control room was, what a control valve was and how it worked, how did a controller know to fill up a tank and then stop filling up--how did that actually work? So the fundamentals were there, people understood the simple things in their homes--how their toilet bowl works--so you were able to use that as a starting point to explain how you're using the same techniques in an industrial environment to control a process.

The Complex Computer-Based Distributed Control System

Turney: The hard part for even the experienced people was we had what they called a distributed control system. That was computer-based, and that was kind of the beginning of using the computer as a control. So there was a lot more information, and it was a lot more complex than what people were used to seeing. Trying to explain that took a lot of time. That went over, as I said, a four to six-week period, so by the time you got to the startup, you had a group of people that had a pretty good understanding of what was happening. You go back there ten years later, and here's some fellow that was sitting in your class and didn't know anything about the business who is now an assistant foreman--quite a valuable set of skills. If he headed out to Nevada and was looking for a similar job, he would probably have no problem getting it as a skilled operator. [We] basically turned somebody into somebody who's quite capable of earning a good wage--a well-paid individual, really.

Swent: At that time--let's see, we're talking about '84, I guess? Or '85?

Turney: '84 to '85, yes.

Swent: They were looking at a job then that they knew would last at least ten years?

Turney: Ten to fifteen years at that time. And they tended to be younger people--maybe twenties, maybe thirty.

The Appeal of Living in Lake County

Swent: So people were receptive to the training because they knew that it would be an advantage to them.

Turney: Yes. I think they quite clearly saw an opportunity there. I think a lot of people in that part of the world were quite committed to living in Lake County. There's a lifestyle question--maybe it's not everybody's cup of tea, but I think you sort of were on the edge of a big city two and a half hours away, yet you had a rural existence. It's a part of the world that's quite good. I enjoyed the nearly seven years that I had there. The beautiful, sunny summers that you had--hot--and in wintertime you actually had a full season there and it was cold. Some years we had snow on the ground, and you're just two and a half hours from San Francisco. You had access to the vineyards--and just watching all that evolve every year was something else.

Swent: When did you move up there to reside?

Turney: I took up residence--well, I was there during the whole startup period, and my wife came up and we lived there August of '85.

Swent: Where did you stay when you just went out there? Were you in Napa?

Turney: No. Most of the time during construction we had a couple of houses that we were renting.

Swent: Where were they?

Turney: Over towards Kelseyville. There were a couple there, there were another two down in Hidden Valley, and during the early part when I used to go out, I used to stay at a couple of motels which weren't that good, really, in Lower Lake. Then we used to stay out at the Konocti Harbor Inn, and that used to be closed half the year, so that became difficult. But as we got closer towards startup and the initial commissioning, we had maybe four or five houses down in Hidden Valley because--

Swent: Just bachelor quarters?

Turney: Yes. There was maybe a four-bedroom house, and there were four guys in that house, and we would cook our meals and have breakfast there together and make a bit of a lunch in the morning and head off out to the site. You basically lived like that a couple of weeks out, then you would go home and come back and basically live like that for maybe six months until things settled down.

I came out and stayed in one of those houses from August until December of that year because I ended up taking a position permanently out there until I had a house built there.

Swent: You built your own house?

Turney: Yes.

Swent: In Hidden Valley?

Turney: Yes, we had a small house there.

Swent: It's awfully nice.

Turney: It was; I really enjoyed it. I had a bit of a yard there, and a few fruit trees that I planted. Had a big vegetable garden.

Swent: Have you kept it?

Turney: No, I sold that when I left to go to Canada. We had quite a lot of fun there.

Swent: I drove around Hidden Valley not too long ago. I was impressed at how lovely it is. Very nice.

Turney: Yes, different levels of housing in there. It started out as a retirement community. With the mine coming into that area, and also the beginning of the geyser area there--you know, the steam power generation--that added a whole lot of people who were looking for permanent residence and somewhere to live close to work--it's about forty-five minutes for people who were working at the mine and also to go up to the geyser area to work--so that changed that community from a retirement place to a working place. That was occurring just as the mine was starting, so the mine had quite a few people who were living down there.

Then, of course, with the Bay Area housing prices increasing and housing prices increasing in Santa Rosa, people were coming in from Santa Rosa to live there and then commute over to Santa Rosa. So it grew quite rapidly in the seven or eight years I was there. It's changed.

- Swent: So you moved there about the time that production really--
- Turney: Yes, I came in right at the beginning. I was really out there almost full-time from the startup of the autoclaves. The other circuit we would start up the grinding and leach CIP--it would have been, I think, late in '84. It must have been four or five months before I was really out there on a permanent basis.
- Swent: The first bar, I think, was poured the spring of '85, wasn't it?
- Turney: Yes, that would be about right. Maybe we must have started up early in '85; must have been just commissioning in late '84 the grinding circuit.

The Startup, One Section at a Time

- Swent: Is this something that happens piece by piece?
- Turney: What you try to do in most startups is start up sections at a time. Why this one was more complicated was you had a very complex processing step in the middle of it. So what was done was we started up the grinding and the pipeline and the back end of the circuit, the leach CIP carbon circuit, and the autoclave part of the circuit was still under construction while we started up that back end. There was no point in starting up the autoclave and having what came out of the autoclave not be able to go through an area that was already commissioned, so we started up all the stuff that fed into the autoclave and everything downstream of the autoclave, and then concentrated on the autoclave. And we started up one autoclave at a time. The first one that was started up was called C Autoclave.

An Aluminum Ladder Causes Problems with C Autoclave

- Turney: There was a couple of problems there. Basically, the units are all brick-lined, so you had to basically soak them in acid inside to condition the bricks before you put it into operation. For some reason, somehow a ladder had gotten left inside when this thing had gotten filled up with acid. An aluminum ladder sitting in sulfuric acid basically generates hydrogen gas. Hydrogen is a reductant, so it actually reacted with the titanium surfaces inside there in the tank and dissolved some of the metal. The

ladder, of course, totally disappeared. That was something that should never have happened.

Swent: It would affect your chemistry quite dramatically. [laughs]

Turney: It did. The first one, everybody's--lots of attention, lots of detail, everybody--

Swent: How did you learn that there had been a ladder left in there?

Turney: Because when we emptied the unit, we noticed there had been degradation of the titanium metal. That should not have happened, so the only way that could have happened is if we generated a reduced atmosphere. We couldn't understand how that could have happened, and the only way that could have happened is if there was some metal in there. Somebody made the suggestion that maybe a ladder had got left in there, and everybody said that was impossible, that we had checked everything. But the plastic remnants of the ladder were still in there, so we knew there had been a ladder in there. To this day we don't know why that ladder got left in there, but it was a problem we got by.

Swent: Where was the titanium that degraded?

Turney: Well, inside the autoclave all the wetted parts are made of titanium: the agitator shaft, the disk at the bottom of the agitator, and the blades. At that time they were all titanium. The feed tubes bringing in the oxygen were made of titanium. The steam lines--all the wetted parts inside. Everything you could see, the metal parts were titanium.

Swent: You said, "At that time." Are they not still made of titanium?

Turney: No. The agitators--we experimented probably within the first year with a ceramic material.

Swent: Yes, you had mentioned that.

Turney: They're ceramic today. They're working very, very well. Then there's what has happened inside: there's no longer a brick wall between compartments. They're also titanium now.

Swent: So in some ways you're using more titanium and in some ways you're using less.

Turney: Yes. It's changed because the trick in the long run is to decrease the maintenance cost of the unit. So there are several methods incorporated into trying to help that, to decrease the effort required in looking after the units.

The Horrendous Problem of Controlling the Let-Down with a Fixed Choke

Turney: The biggest problem we had in the startup was trying to get the control system so that we could control the let-down in a controlled manner. It was just horrendous. The desperation of trying to get that started up and settled down--again there was lots of ideas. At one stage we said, "Well, this is not going to work. We're going to have to change and modify completely the let-down system." But you know in the heat of the moment, I guess, we really had all these ideas. When things were settled down, and we got things all calmed down and actually ended up being able to stabilize the let-down system and learned how to--it was that initial turning on and getting it running that was the problem.

What we had to do was--we knew we had to fiddle with the size of the choke, which is the piece that dictates how much fluid can flow out of the autoclave. What was done at McLaughlin and it still is operated that way is that it's a fixed-choke system. There's a fixed orifice through which all slurry has to pass, and that's quite different from what I think other developers have done. Nobody's doing it quite that way. They're all using a regulating valve, which is a much higher wear device.

The Control System Still Operates the Way It Was Designed

Turney: It was settled down, and in fact the unit actually runs and is operated very close to the design temperatures and pressures and conditions that were originally designed for it. The design team probably did a pretty reasonable job when you think about something as complex as that. It's essentially still operating the way it was designed.

Swent: Are these controls automated?

Turney: Yes. They're essentially a series of pressure and level controls which then all come back to the computer to tell a valve to either open or close or a pump to speed up or slow down. So the key thing with the autoclave at McLaughlin was the speed at which you put slurry in is the speed at which slurry will come out. So you regulated it that way.

The Nuclear-Source Level Indicator in the Final Compartment

Turney: And then in the final compartment, there's a nuclear source which is then giving an indication of what the level is. Initially, we didn't have that. We actually had an external part on the outside where we could actually measure the level. We had a very low-level nuclear source because the vessels themselves are lead-lined. We never thought we would be able to have a source that could go through the lead, but one of the modifications that was made several years later was to actually put a source inside the autoclave that could actually project through the lead and be picked up by a detector on the outside.

Swent: I thought they were brick-lined.

Turney: Actually, it's a very complex lining. There's actually a steel shell.

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Swent: So there's a shell of steel.

Turney: Two to three inches thick, then a lead membrane over the top of that, and then--

Swent: Over or inside?

Turney: Inside. So picture a cylinder of two or three-inches-thick steel, and inside that a thin membrane of maybe a quarter-inch-thick lead. Then two layers of refractory brick, which is quite a porous sort of brick. The brick, I think, is four inches thick, so there's eight inches of brick altogether.

What the brick does is act as an insulator, so there's a big temperature drop from the slurry that's in the middle of this vessel and have the bricks there as an insulator. Then the lead is there as a chemical protection for the steel, and the steel is there as the containment vessel to keep the pressure all inside. So it's a system.

Swent: And the nuclear source is in the middle.

Turney: It sits in a double-lined vessel: a steel vessel inside a titanium vessel. There's a source inside that then radiates out radiation. And the radiation is absorbed in the water, so where there is no slurry, it would get through to the outside and you would be able to then have a detector and pick it up, so then you would know what the level is of slurry inside the autoclave.

Swent: You can't have a peephole.

Turney: No, so you had to use some device to tell. And there's other ways of doing that--bubble tubes and lots of other little gadgets--but the nuclear source is the most reliable.

Swent: And this registers on a computer somewhere and the operator--

Turney: Right. It's a continuous readout, and the operator is able to look at that and know what the level is in the autoclave at all times. And then you can use the level to automatically adjust the pressure in the autoclave, which would then increase or decrease the flow out of the autoclave to maintain that particular level. Then, as I said before, the speed of the pumps would then be sped up or slowed down to match that level. The feed in and the discharge out and the pressure are all monitored externally. That information would then keep the whole process at a steady state. So once you've started it up and reached that condition, it would all just roll along at a constant--none of the lines would change. They should all be, in theory, straight lines on the computer screen.

We didn't really have many problems starting up the oxygen plant. The oxygen plant is an integral part of autoclave operation because you're using 99 percent pure oxygen as the oxidant inside the autoclave. That started up with relatively minor problems, really, but that's not surprising. We basically bought a packaged standard system.

Ten Years Later, a Routine Operation with 92 Percent Mechanical Availability

Swent: It was tried and true by then.

Turney: Exactly. As far as the autoclaves themselves, I think the first year of operation was difficult and more complex than a normal milling startup because you're dealing with something new. You had to stop and open up the autoclave and get inside and look at the condition of the bricks and the mortar and make sure that it was going okay.

We had a couple of problems with a leak in the lead membrane in the first autoclave that had to be repaired. We learned about some problems about a year and a half later with the brick degrading and softening. Certain things happened inside the autoclave with materials or construction that we didn't

anticipate. There were certain areas of the discharge system that wore more than we thought, so over the years the systems were modified and changed to improve the online performance to approach what the operators there are doing today.

I saw this last month they're running something like 92 percent mechanical availability, which is--now it's a piece of equipment that has an availability comparable to a grinding circuit, so over a decade that system has settled down tremendously. It's become a routine operation.

Swent: Availability--you mean that it's only down a certain percent of the time for repairs?

Turney: Yes. I think what mining people generally mean is that of all the hours that I've got a piece of equipment--whether it's 365 days times twenty-four hours--92 percent of all those hours it's available and working and doing the job that it should. The other 8 percent is then available for maintenance.

Swent: And is that good?

Turney: That's a good number.

Swent: That's what you aim at.

Turney: Yes, in the nineties.

Swent: So it really has worked as well as you hoped.

Turney: Yes, it really has.

Swent: Have there been any accidents to personnel? Are there risks with this?

Turney: Well, in all high-pressure applications there's risk, but that can be designed out of the system. This autoclave system has an emergency pressure release valve such that if a pressure is exceeded, then the valve will automatically open and discharge and relieve that pressure. That's a mandated function that's on all pressure vessels. There's been accidental leaks, et cetera, around that autoclave system, but to my knowledge the autoclaves have not hurt anybody. I think we've had a couple of accidents where a mechanic has squashed a finger or done something during a repair function--nothing different from what would happen on any piece of equipment.

We haven't had somebody being burnt from a steam leak or a pressure leak or some problem like that. One of the other

autoclave operators has had an accident where some people were burnt, and quite seriously, when titanium metal caught fire and burnt. The industry is such that we were all very well informed of that. I think within about two days of that accident I was at that operation and talking to them about what had happened. Autoclave operators have been very good in communicating to each other what they're observing and the safety aspects of operating this equipment. There's a fairly good standard out there at the moment.

In general, I think McLaughlin has done quite well in that area as far as the autoclave building itself is concerned.

Swent: Do you just think of the possibility of the whole thing blowing up someday?

Turney: No, I think that would be an engineering problem, and the safety factor in that two-inch-thick walled vessel is very great. I think the [nameplate] pressure on that unit is 400 and something psi. You don't dare approach that.

Testing for a Possible Autoclave at Eskay Creek

Swent: At Eskay Creek you're not doing anything beyond concentrating, is that right?

Turney: The original concept up there--it is also a refractory ore, and the idea was to install an autoclave. We did a test program, a pilot program. We did that at Hazen and designed the system, and did a cost estimate.

Swent: Was it very much like the McLaughlin one?

Turney: Similar, although processing of the ore was even more complicated. It's a much more complex process altogether. We actually made gold and silver and zinc metal, and precipitated out copper as well, so there was four products which can potentially come out of this circuit. A very rich ore body.

The capital cost was quite high. We actually received a permit for construction of the facility, but the decision was made early in the piece to not go that route. What we ended up doing was being able to sell the ore directly to smelters and thus avoid that capital expenditure. So that was what was done and that operation went into production January of this year, and has now been operating for the nine months, and they're on

target, producing ounces and selling their product. It's a very different sort of project.

Swent: Is gold the only product at McLaughlin? Or mercury?

Turney: Gold and silver.

Swent: There is silver also?

Turney: Yes. It runs maybe 70 percent gold, 30 percent silver, in the doré that leaves there.

Swent: But you don't separate.

Turney: No, not there. It basically heads out as gold bars--it still looks gold, but it's a light color because of the silver in it. And the silver varies as you go along. I think we've seen some bars probably around 80 to 20 [percent].

And there's been some mercury production there. I can't recall how many flasks have been made there, but there's always been a little bit of mercury, particularly when we were in the upper part of the ore body, which is where the mercury miners were extracting the mercury.

Swent: And are you anticipating autoclaving at Ruby Hill, too?

Turney: No, Ruby Hill is a nice, simple heap leach. We haven't got any autoclave operations on the books at the moment. They're all quite simple at the moment.

Swent: So all your expertise is unapplied for a while.

Turney: I've got all those other issues to deal with now.

Swent: Did you want to talk a bit about Barrick and that connection there, or did we talk enough about that?

Turney: That's probably okay. That's enough. I think we've covered most of those things that were on the bottom of the list that you faxed me the other day.

The Kauffman Family: Suppliers to Miners for Three Generations at the McLaughlin Site

Swent: I haven't a copy of it here at hand, but I think we have--the Kauffmans and the wood--what was that?

Turney: Oh, that was the other little incident you said maybe I should like to--it's funny how--as I said, I was back there last week, and one little story that Dennis was telling me about--history I found a bit fascinating. The way this story goes was that--because I couldn't understand where the Kauffmans come from, you know? Why were they a royalty holder? I could understand Mr. Wilder because he was an old mining sort of fellow and he loved his mercury retort there.

Swent: He owned the place.

Turney: Right. He was One Shot Mining Company, so that one all made sense. So I said to Dennis, "Well, how did the Kauffmans get involved?" It sounds like this family's lived in this area for a long time. And apparently, the father of the Kauffman that we negotiated with--so we're now dealing with a third-generation Kauffman here--so three generations before that, Mr. Kauffman had a wood supply company, where he basically was based here somewhere in the Bay Area and he supplied the small mercury mines that were in that area with their wood supplies--basically for the underground mine and other wood requirements. And what he had done, according to Dennis, was he had either received in payment some land or had bought this facility which he called his ranch. And as part of his entertainment of the mine managers and all, he used to organize these hunting parties in that area. Apparently the deer population in that area was quite prolific, and he organized a hunt there every year. That was the Kauffman property, which is around Davis Creek, where we eventually had our Davis Creek reservoir.

So the Kauffmans had been involved in supplying wood to the mines and they had this small property. Apparently the oldest son and old man Kauffman, who Dennis and the other people had negotiated with, actually ran--or operated--a small mercury mine on their property in a heyday which was thirty-odd years ago when there had been a spike in mercury price and so people started up these little mercury mines.

So I just found it fascinating that this family also had been involved--indirectly and directly--with that mining industry there in that area for three generations. That was the story.

Swent: Well, that was a good one.

And how did it seem to be back up there? Were they running the place properly?

Turney: Oh, yes. It's quite good still.

The Joy of Sailplaning (Gliding) in Lake County

Swent: It must make you feel awfully good to go up there and see how well it's thriving.

Turney: Yes, I enjoy going back there. I've been getting up there quite regularly, actually, because I am a bit keen on gliders--you know, sailplanes--so I fly with a group of people in Middletown. I try to get up there as often as I can. I hadn't done that for the last three years, while I was up in Canada.

Swent: It's a great place to do that, isn't it?

Turney: Oh, it's just one of the best places in the world. It's a marvelous area for--the hot summers there, the thermaling is just excellent. You've got all the hills as you're heading towards Mt. Konocti, so you can actually--on a good day--thermal right out of Middletown and head straight towards Clear Lake and glide all around that area and come back. You actually go over the mine; it's possible to get up to the mine on a good day. It's a wonderful area for it.

Swent: You do this with no engine?

Turney: That's right; a glider. A sailplane.

Swent: A plane pulls you up first.

Turney: Yes. You pull up, and then you release from the tow plane, and then you catch the air.

Swent: It's as near to being a bird as you can get, isn't it?

Turney: It is. It's a wonderful thing to do.

Swent: Must be a thrill.

Turney: Yes. You should try it next time you're up there.

Swent: Oh, I think everybody sort of dreams of doing this sometime, but --

Turney: You've got to do it. It's a wonderful thing to do.

Swent: How do you come down? Carefully.

Turney: Yes, you've got to plan that all out. You don't have a second chance because you can't start the motor. So it's all fairly regulated; you just sort of think about what you're doing and make sure you're at a certain elevation at a certain time and a certain place. That's what the whole training program for glider pilots is all about: it's that judgment.

Swent: Is there anything else that I should ask you that I haven't?

Turney: I think I'm talked out.

More About Problems with Viscosity of the Slurry

Swent: Do you? I think we've talked about most of the things. We didn't mention viscosity.

Turney: That was one of the things that was a problem we had when we started up. Viscosity is the thickness of the slurry and how easy it goes through a pipeline and is pumped. The viscosity of everything downstream of the autoclave was much thicker than anything we anticipated, so there was a very significant revamp of pipelines. They were all expanded in size and extra horsepower added to agitators and tanks. That was a fascinating study in itself, to try to understand what we could do about the viscosity--how to reduce it, how to get the whole place to work. That was all in that first year when we were struggling to meet the performance targets which we struggled to make that first year. It took a good year to get those things sorted out.

Swent: Once it leveled off, it was--

Turney: Yes. You had to basically define the problems and start ticking them off as being solved. It took a year.

Swent: Well, it's been a great project, and now they're talking about winding it down.

Turney: Yes, that's true. The autoclave part winds down, but there's still another five years of operation there. All those low-grade

stockpiles will be processed. One of the interesting things that's happening up there is that that material that has sat out for the last ten years has slowly oxidized, and the recovery has improved a little bit on it. So they're currently getting ready to start changing over some of the tanks so it'll be two grinding circuits feeding just a traditional leach carbon-in-pulp circuit with the autoclaves closed down. So it will still produce 100,000 ounces a year. It's a significant producer for the company for another decade, really.

Getting Ready to Close Down and Dispose of the Autoclave in 1996

Swent: So the autoclave will be the first section that's down.

Turney: Yes, that will happen probably by this time next year. That will be not quite eleven years. One thing that's happened is, you know, the original concept was fifteen to twenty years at 3,000 tons a day, but six years ago we added that extra grinding train, and then mining at 6,000 tons a day, so it's not surprising that the life is condensed. And what with control of costs and a little bit more ore, we've been able to process more tons than was originally anticipated, so the three million ounces that were believed to be there were definitely there, and I think we're well over two million ounces out of there now already. Everything was there.

Swent: What do you do with the used autoclave?

Turney: Well, we're trying to sell them, and that's going to be whether somebody needs one like that. There's some interest. We've had some people come in and have a look. There's another company that has a refractory ore body that perhaps could use them. It's hard to say whether they'll sell them.

Swent: Not much else that you can do with it, is there?

Turney: Not really. And you'll sell the peripheral stuff. The oxygen plant will sell fairly easily. Lots of the pumps and bits and pieces around we'll sell, but the pressure vessels themselves will be difficult to sell. I would imagine before the decade's out that somebody will want them. That sort of stuff doesn't sit around long. Some of these autoclaves in the uranium industry have had two or three lives--picked up and taken to another operation, and off they go again. It's the sort of equipment that has to be looked after. The conditions are so tough that people look after that sort of thing. You can't have a pressure

vessel where you sort of let it run out to the last day and it'll be just all worn out, because it has to be perfect all the time. You can't risk the person who's working beside it. That's not the way you would look after something like that, so it's in good condition right to the last day.

Swent: And you can't turn around and use it for winemaking or breadbaking or something. [laughs]

Turney: Not that I can think of.

Swent: No. It doesn't convert to something else very easily.

Turney: No, not that easily. It's very particular for that cause.

Swent: Okay, well, I guess we've covered all my questions. If you think of anything later, we can always add it.

Turney: Okay.

Swent: Thank you very, very much.

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Western Mining in the Twentieth Century Series
Knoxville/McLaughlin Project

Della Underwood

KNOXVILLE RANCHER, McLAUGHLIN MINE SURVEYOR

An Interview Conducted by
Eleanor Swent
in 1994

Since 1954 the Regional Oral History Office has been interviewing leading participants in or well-placed witnesses to major events in the development of Northern California, the West, and the Nation. Oral history is a method of collecting historical information through tape-recorded interviews between a narrator with firsthand knowledge of historically significant events and a well-informed interviewer, with the goal of preserving substantive additions to the historical record. The tape recording is transcribed, lightly edited for continuity and clarity, and reviewed by the interviewee. The corrected manuscript is indexed, bound with photographs and illustrative materials, and placed in The Bancroft Library at the University of California, Berkeley, and in other research collections for scholarly use. Because it is primary material, oral history is not intended to present the final, verified, or complete narrative of events. It is a spoken account, offered by the interviewee in response to questioning, and as such it is reflective, partisan, deeply involved, and irreplaceable.

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It is recommended that this oral history be cited as follows:

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INTERVIEW HISTORY--Della Underwood

Della Conner Underwood's interview covers multiple areas of the Knoxville District/McLaughlin Mine story: she speaks as a Knoxville native, a rancher, and a McLaughlin Mine employee. She exemplifies a new trend, women as mineworkers; and a very old traditional role, the wife who is her husband's helpmeet and full partner. It was a particular pleasure to interview her and hear how the McLaughlin Mine impacted her life.

Della's roots at Knoxville are very deep. Her forebears all came to the Berryessa Valley region around the time of the Civil War. When she was born, her parents lived at Knoxville and her father worked as a cattleman on the Gamble Ranch. After she graduated from Napa High School and married Curt Underwood, for three years they lived in the same house where her parents had lived when she was born. Even when for several years they owned a ranch in Oregon, they brought their cattle down to the Berryessa area for the winter. They held grazing leases at the Manhattan Mine location; she says, "We got a pretty good deal from Bill [Wilder]. Curt gave him a steer a year for the rent."

In August 1986, Homestake hired her and for some time she worked on an all-women blasting crew at the McLaughlin Mine. Then she transferred to the mine engineering department, where she was the only woman. She was willing to work hard and learn on the job all the required skills. The interview was held in the conference room at the mine office on June 16, 1994, at the end of her shift. She was dressed in work jeans and boots, probably much the same as when she worked on the ranch, and she looks strong but womanly; it is easy to imagine her as a grandmother who would bake cookies. She was shy at first about her accomplishments, but gradually became more confident in telling about what she has done to develop her talents and earn cash to benefit the family ranching business.

She said, "I've learned to operate the surveying instruments...I've been responsible for logging samples and delivering them to the lab. I've learned invaluable stuff on the computers that I never had any experience with before I started here."

She knew from the start that this would be a temporary job, and she said, "We really didn't intend for me to stay this long, but it's been such a good job...with the medical benefits. That's the one thing you really have to think about. We've got enough cattle...when this shuts down, I'm not going to be unhappy. It's been a real good job."

She also feels positive about the environmental impacts of the mine:

This country has never been anything but grazing country...
[it] wasn't a real exceptional place to fatten cattle, so as
far as I'm concerned, they've taken something and made it

productive. Helped give people jobs and...I believe that the wildlife is more plentiful now than it was thirty years ago... I see more bobcats, more deer...a lot more birds. I think the poaching is a lot less because of the mine being out here.... There used to be a lot of shootings, people shooting cattle."

Now that the mine has closed down, she is again hard at work helping her husband. In the fall of 1999 she wrote, "We had a wild fire burn through all of our grazing ground a couple of weeks ago and Curt and I have been busy trying to keep hay in front of the cattle."

The tapes of the Della Underwood interview were transcribed in the Regional Oral History Office and the lightly edited transcript was sent to her for review. She reviewed it thoroughly, made a very few changes for clarification of details, and went to the nearest post office, fifteen miles away, to mail the transcript back in March 1995. The manuscript was corrected and indexed at our office. The tapes are deposited in The Bancroft Library and are available for study.

The Della Underwood interview is one of more than forty interviews which were conducted by the Regional Oral History Office from 1993-1999 in order to document the development of the McLaughlin gold mine in the Knoxville District of Lake, Napa, and Yolo Counties, California, from 1978-1999, as part of the ongoing oral history series devoted to Western Mining in the Twentieth Century. The Regional Oral History Office was established in 1954 to record the lives of persons who have contributed significantly to the history of California and the West. The office is a division of The Bancroft Library and is under the direction of Willa K. Baum.

Eleanor Swent
Project Director, Research Interviewer/Editor

November 1999
Regional Oral History Office
The Bancroft Library
University of California, Berkeley

Regional Oral History Office
Room 486 The Bancroft Library

University of California
Berkeley, California 94720

BIOGRAPHICAL INFORMATION

(Please write clearly. Use black ink.)

Your full name Della Ann Underwood

Date of birth April 27, 1943 Birthplace Solano Co. CA.

Father's full name James McMath Conner

Occupation Cattle Rancher Birthplace Monticello, Wapa Co. CA.

Mother's full name Della May Samuels

Occupation Wife & Mother Birthplace Vacaville, CA.

Your spouse Curtis Thurman Underwood

Occupation Cattle Rancher Birthplace Maysville, OKla.

Your children William Shane Underwood 5/24/64

Clayton Curtis Underwood 12/10/67

Where did you grow up? Knoxville CA. Mining Area and Berryessa Valley, Napa Co.

Present community Lake Berryessa, CA.

Education Completed High School

Occupation(s) A Mother and Cattle Ranchers Wife.

Mining Engineers Tech.

Areas of expertise Being a Cattle Ranchers wife I am a Bookkeeper, a Tax Preparer, a Veterinarian, A financial adviser and a shoulder to lean on.

Other interests or activities Grandchildren, Border Collie cattle dogs, Photography, Vegatable gardening, NBA Basketball, and Savoring every Moment of My outdoor Country life

Organizations in which you are active _____

INTERVIEW WITH DELLA UNDERWOOD

KNOXVILLE RANCHER, HOMESTAKE MINE SURVEYOR

[Date of Interview: June 16, 1994] ##¹

Ranching in the Monticello-Knoxville Area

Swent: We are interviewing at the Homestake office on Morgan Valley Road, near Lower Lake, California, on June 16, 1994.

Della, do you want to tell your maiden name, and where and when you were born?

Underwood: My maiden name was Conner. I was born in Dixon, California, while my folks were living at the Knoxville Mine. I was born April 27, 1943, and my parents' names were Jim and Della Conner.

Swent: You were named for your mother, then. That's nice.

Underwood: My dad was working for Launce Gamble in the ranching part of the Knoxville area at the time I was born. The Knoxville Mine--quicksilver, mercury mine that belonged to George Gamble--was in operation at that time. My dad had nothing to do with that. He was just in the cattle ranching part of it.

Swent: He didn't think much about miners.

Underwood: And he didn't think much about miners. He didn't think that miners and cattle ranchers mixed because of open gates and run-over fences and a few things like that.

Swent: They were just a pain for him, I guess, weren't they?

¹## This symbol indicates that a tape or tape segment has begun or ended. A guide to the tapes follows the transcript.

Underwood: Yes.

Swent: He was trying to keep the gates closed, and the miners--

Underwood: --would settle in.

Swent: You told me also that both sides of your family had been here for a hundred years or more.

Underwood: Yes, both sides of my family came here in the 1860s, 1880s.

Swent: One branch came from Alabama, you said?

Underwood: My mom's side. She was a Samuels, and they came from Alabama. My dad's father's parents came from Indiana, and his mother's parents settled in Potter Valley up here in Lake County [now Mendocino County]. So, yes, we've pretty much been natives around here for several years.

Swent: A long time. All ranchers?

Underwood: Yes.

Swent: And Monticello was--

Underwood: Yes, my dad was born in the town of Monticello in 1910. Lake Berryessa is there now, so there's no town of Monticello. I went to grade school at Monticello from first grade through seventh, and that was--in '55 they started the excavation on the Berryessa Lake, so everyone was moved out and relocated. My dad was still working for Gambles, and they bought a ranch over at Yountville in Napa Valley, and we went over there. I continued my education there and graduated from high school at Napa in 1961.

I then, that following September, married my husband, Curt. At that time he was also working for Gambles, and we moved back to the Knoxville ranch house that my folks were living in when I was born. We lived there for almost three years, and I got pregnant with my first son while we were living there. Before he was born, my husband got a chance to go to work for another rancher down at Berryessa, and so we moved back to Berryessa in April of '64.

Swent: Do you mind saying how much you were paid?

Underwood: He got \$315 a month and a house. [chuckles]

Swent: Of course, you didn't pay any utilities then.

Underwood: No, they paid the utilities. And then we got a chance, after we were married for two years, he got a chance to rent some ground. Well, he rented the old Kauffman place to start with, over on Davis Creek. And some people that I worked for while I was in high school loaned us the money to buy our first cows. [chuckles] And then we just lived--you're going on about that being not much money, but we lived on half of that and half of the rest of it went into our cows.

Swent: You invested it in your cows, yes. What was your husband doing?

Underwood: When we left and went to Berryessa, he went to work for a guy named Bill Marks. And he had a lot of that land rented there at Berryessa. In the summer time he had a feedlot and a slaughterhouse at Woodland, and we'd go to Woodland in the summer. He worked at the feedlot. Then in the winter we'd come back with the cattle when they moved the cattle back in the winter.

He worked for him until we got enough cattle of our own that we bought a small ranch in Oregon in 1974, and we were in Oregon until 1986. We have two boys, and they both basically grew up in Oregon and went to school there. When we moved back down here, they were both in college. And when they got out of college, they stayed in Oregon.

Swent: But the Oregon adventure wasn't so good for you.

Underwood: No. We kind of went broke up there.

Swent: It was a bad time to try.

Underwood: Yes, it was like the Carter administration and high interest rates. [chuckles] You know, there was things that you couldn't manage, and there were things that we probably mismanaged. We did a lot of work. It wasn't because we didn't work.

Swent: No, I'm sure it wasn't. It was bad times.

Underwood: So anyway, when we came back down here, my husband still had some property rented, some grazing property rented.

Swent: He still had cattle on it?

Underwood: Yes. We used to bring our cattle down in the winter.

Swent: You summered up in Oregon and wintered down--

Underwood: Yes. And we put up hay and grain and stuff also.

Swent: Where did you live then?

Underwood: We lived just out of Klamath Falls, Oregon.

Swent: But down here. You had a house here?

Underwood: We had a little cabin that we stayed in at Berryessa on some of the land we had rented.

Swent: And were your folks still here?

Underwood: Yes. Well, my dad passed away the year we went to Oregon, and my mom was still--she lived in Pope Valley. And then about that time we heard that the mine was hiring.

Swent: You told me that you had heard a little bit about this already in Oregon.

Underwood: We already knew. Well, you know, having grazed cattle and stuff here, well, all of that is something else. We also had the grazing lease on the Manhattan property.

Swent: Yes, you mentioned that. When did you get that?

Underwood: We rented that. The first year we had it was in '64, 1964, and we rented it from the Knox estate. They were the ones that owned the property then. Then, when Bill Wilder--

Swent: It had not been available before then? Had it been rented before?

Underwood: Yes, there were some other guys that had a grazing lease on it before we got it, but they gave it up for some reason.

Swent: The Knoxes weren't grazing it.

Underwood: No, the Knoxes, as far as I knew, never grazed it. As back as I can remember. They might have when they first got the property. Yes, there were some other ranchers. In fact, I think one of the wives of the guys that rented it--their last names were Howards. And they were from Woodland. And one of the Howard boys's wives was originally [Ebenhauser], and they owned property right off up here where the tailings pond is--years ago. In fact, my dad used to help those girls. I guess their dad passed away or something, and he helped those girls with the cattle and stuff when they needed some extra help once in a while. Yes, they had that rented. I'd forgotten

that. Their name was Ed and Farnum Howard. Two brothers had it rented, the grazing, before we did. And I can't remember how many years before. Two or three years they had it, I guess. And then Curt rented it. They gave up leasing it, and then Curt rented it from '64--he rented it in '64 from the Knox estate, and then he rented it whenever Bill Wilder acquired it.

Swent: When you rented from the Knoxes, did you have a contract on paper?

Underwood: Yes. I think we gave \$500 a year for it.

Swent: And you had a piece of paper, a contract.

Underwood: Yes. In fact, the old guy, Charlie Wilson--I don't know if you ever heard his name.

Swent: I've heard that name.

Underwood: He was an old-time miner. He was handling that for them, and we did it through him. He got the paperwork and everything.

Swent: Did you have to get a lawyer?

Underwood: No.

Swent: No, you just did it.

Underwood: We sent him the money and there was just a little thing that we had agreed. If they sell the property, they'll prorate the rent, and we'd move out. But when they sold the property, Bill Wilder said, "Hey, fine."

Swent: You said you ran into him.

Underwood: Yes. Curt ran into him I guess when he was looking at the property. He was up here somewhere, and Bill had his maps all spread out on the hood of his car, checking out the lines, I guess. [chuckles] Anyway, we got a pretty good deal from Bill. Curt gave him a steer a year for the rent. And I can't remember when we didn't rent that any more from Bill. He could probably tell you that. In fact, I should have asked my husband that. He could probably tell you.

Swent: You weren't renting at the time that the mine came, then?

Underwood: No. When we went to Oregon we didn't rent anything more in this area. We had a couple of pieces of property at Berryessa that we kept rented while we were up there.

Swent: But not here in the Knoxville area.

Underwood: But not right here in the Knoxville area. Kauffman, we rented from him for, I don't know, four or five years. The first time we rented from him was, well, we got the cows in October of '63, so it would have been around that time that we started to rent from him.

Swent: Is he still around?

Underwood: He passed away. He's got two boys. I think they live somewhere down by Stockton or somewhere on the river down there. In fact, I've seen the oldest boy when he was at the mine one time and we had a little bit of a visit because they were like kids when Curt and I got married, so we knew them all pretty well.

Swent: So when you came back here, you knew that the mine was coming in, or had started.

Underwood: Yes, it had already started. We heard that they were hiring, so I kind of got to know Marion Onstad, who was the secretary up here. And she said, yes, they were hiring.

Swent: How did you get to know her? Do you remember? She wasn't someone you had always known?

Underwood: No, she was a friend of some other friend that introduced us. [chuckles] So anyway, she said, "Turn in your application, and if I get a chance, I'll put it on top of the pile." [laughs] So, yes, that's how I got hired.

Swent: Did you talk it over with your husband?

Underwood: Yes. I said, "Hey, I can work," and so he still had his leases.

Swent: He didn't think of trying to get on here?

Underwood: Oh, he came up and applied for a truck driving job, and they were going to hire him, and then he went for his health--they give you a health examination? But he had had a back operation in 1972, before we went to Oregon, and he had never had any problems with it after he had that done, and he lifted, baled hay, shod horses and everything else and never

gave it a thought about it ever being a problem. And so when the doctors asked him if he had had any operations or anything, he said, "Yes, I had a back operation in '72" and right then, you know, wow, Homestake didn't want anything to do with him. Which you can't blame them, I guess. But, like I say, he's never had a problem with it since. So if he didn't get on, well, luckily, I did.

Swent: So you didn't know what job you were applying for then.

Underwood: No. Well, I applied as a laborer, and the first job I got was on the blasting crew. That was, like, for four months I worked on the blasting crew.

Working on the All-Women's Blasting Crew

Swent: What did you do?

Underwood: It was basically loading blast holes and getting ready for the blast. I don't know whether you knew it or not, they had an all-women's blast crew here for a while.

Swent: No, I didn't know that. Tell me about that.

Underwood: Well, the head guy was a man, and he wanted to hire all women because he felt like if they were told to measure a certain amount of something, they would measure that amount. And so, yes, let's see, there was one--

Swent: What were their names? Do you remember?

Underwood: Well, the head blaster was Shorty Watson.

Swent: And this was in '86?

Underwood: Yes, it was in August of '86. I think they had already been working, probably almost a year, before I got on. And then there was Liz Thomas. And Bill Wilder's daughter, Kelly, she worked on it, Kelly Wilder. And [pausing] there was Linda [Lucientes]. None of these gals work here any more. [chuckles] Kathy Montie, M-O-N-T-I-E, I think it was. Let's see. Have I left anybody out?

Swent: And you would be five.

Underwood: Yes. We were the crew.

Swent: And he really definitely wanted women.

Underwood: He wanted women, yes. So I worked on that for four months. It was hard work. I mean, it was hard, back-breaking work. I was older than all the rest of them, but I kept up with them.

Swent: You worked just straight days?

Underwood: Yes. That's what was nice. And then we had done such a good job, I guess, they decided they were going to cut the crew by two people, and there was a job coming up in engineering, and they said that the person who had the least amount of seniority would really be the logical one to go, if none of the other gals wanted to go. So I said, "Hey, I've got least seniority." Which I was really glad afterwards. That's when I went to work in the engineering department.

Swent: Did the other girls want to stay on the blasting crew?

Underwood: Yes, they stayed on the blasting crew.

Swent: Did it pay better?

Underwood: No. In fact, I started to work at the same price in the engineering department as I was getting on the blasting crew.

Swent: But it was easier work.

Underwood: Oh, yes. And it was a lot more interesting. On the blasting crew, there's just certain things, steps that you did each day. You know, they had a hole. You'd put a booster down the hole, you put the e-cord on the booster, and you put a certain amount of powder in the hole, and then you took a little back-breaker and hoed all the shavings back into--what they call "stemming," stemming the hole, and you just had to put all that stuff back in the hole over the--

Swent: That was what was the hard work?

Underwood: Yes. That was the hard work.

Swent: You didn't have to drill the hole.

Underwood: No, the drillers drilled the hole. The regular, big drilling. They look like water well drills. Have you seen those?

Swent: They're all marked and everything.

Underwood: Yes. So all's we did was go out there, and then Shorty would say--he kind of knew how hard the ground was and stuff, so he'd know that this area's holes would have to have so much powder, and that area so much powder, and we just basically done the same thing every day. It was kind of exciting [chuckles] the first few holes. But anyway, I had a chance to get on in engineering--

Swent: Just one more question. You did this in any kind of weather?

Underwood: Oh, yes.

Swent: Five days a week?

Underwood: Five days a week. And we put our little rain suits on, and it would get muddy, and if you're out there hoeing that shavings back in, you know, you'd have mud all over you. And then after you got all the holes loaded, you'd have to squat down and tie them all in. There was a certain way you'd tie the lead-in cord to the blasting cords. Yes, that was pretty physical work for a person forty-one years old! [laughter] Even though I had moved a lot of irrigation pipe and stuff on the farm.

Swent: And then you just went off and sat and waited for it to go off?

Underwood: Yes. We would usually have them ready to go off--three o'clock in the afternoon is when they usually blast. And then we set off the blast at three o'clock, and the next day we'd go to it again. But we were doing a lot bigger blasts in those days because they had bigger areas that they were working in. You know, when you first start the pit, you have a huge area. We were setting off the maximum amount per day, which would be right around 300 holes. I think now they're going more, like, if they do 200, they're doing pretty good. But it's just because of the areas at the mine.

Swent: Was your husband happy to have you doing this?

Underwood: Yes. You know, we've always done everything together. I mean, from the time we started, when we bought our own cattle and lived on half our wages. It's just--we work well together. We holler and yell at each other, but--

Swent: I'm surprised he could get along on the ranching without you.

Underwood: Well, we really didn't intend for me to stay this long, but it's been such a good job that it would really be kind of

silly, with the medical benefits. That's the one thing you really have to think about. We've got enough cattle of our own going again that when this shuts down, I'm not going to be unhappy. It's been a real good job.

An Engineering Job as Mine Surveyor

Swent: Yes. Well, tell me about your engineering job, then. You went after blasting--

Underwood: Well, I went into engineering, and I was a little leery because, you know, I'm a sixties person that grew up in an old-fashioned home, and I thought men were always--you're supposed to take orders from them. Which, I mean, my dad and mom were always, like, equal. And my husband always treats me equal. But you're kind of a little leery going to work with all these guys, you know? [chuckles] But they're really good--really good to work with.

Swent: So what was the job that you started?

Underwood: Well, basically what we are is engineering technicians. And the engineering department do all the designing of the pit area, and they have the care of ore control, which is where-- I'm not very good at explaining stuff. The engineering department has to know where the gold is. They are responsible for all the sampling. The samples are brought to assay. All the samples have to be logged and mapped so you know when it's time to, when you get your assays back, you know where to mine them.

They're responsible for figuring the budgets and stuff, so we have to know exactly how much dirt is being taken out of the mine every month, so we do a survey, a complete survey of all the areas that have been mined each month and figure the volume on the tonnage for that. I've learned to operate the surveying instruments. You know, do what we call "run the rod," which is--a rod person has to hold the rod for the person who's running the survey instrument.

Learning Invaluable Computer Skills

Underwood: I've been responsible for logging samples and delivering them to the lab. I've learned invaluable stuff on the computers that I had never had any experience with before I started here.

Swent: You said a lot of this is computerized now.

Underwood: Yes. Like, basically the surveying instruments are all computerized. In fact, about a year ago, we got a new instrument we call a "total station" and it has a data pack right on it. Usually, when you used to survey, you had to have a person take notes as to the angles and things you were doing. Well, now you just hook up your little pack and put some information into it and punch a few buttons, and it records all that. You bring it in and you plug it into your computer, and--

Swent: It's all there.

Underwood: Like, at the end of each month, when we do the volume survey, it puts all those points that you've surveyed right on a map, so you know the exact elevation and distance and all the information you need, where that used to be done by hand, I understand, a few years ago.

Swent: But you still have to have a person to interpret what you're looking at, don't you?

Underwood: Yes.

Swent: Can you tell by looking at it what is ore and what--

Underwood: Oh, I don't have anything to do with the ore, except for logging the samples so they know exactly on the map where each one of those holes was. We survey. Like, when they put in a blast pattern, we survey--we have control corners on that pattern and the exact measurements of each hole, so we know exactly where each one of those holes is. And the drillers, when they drill, they leave a sample bag by each hole. One of our jobs is to go out, give that bag a number, make sure that's recorded on the map, deliver it to assays. And then when the assay comes back they have ore control people, and a couple of those guys are geologists. And the guy that actually does the computing that draws up the ore blocks, we call them, he's a draftsman, to start with, and he has also

learned a lot of stuff with the computer since we've been there. That's about all I can say.

Swent: So this is before the mining, in other words.

Underwood: Yes. And once we get the assays back and they know they have a certain grade on them, the ore control person, he draws up what we call blocks on his computer, because he knows where each corner, where these holes were. Then he gets those blocks drawn up, and they all have an angle. He gets the angle for the surveyors. We go out there, and we shoot in those corners for each one of those blocks and tape off that area. Like, a certain area will be the high grade, a certain grade; and then another area will be a lower grade; another area will be waste; and then we put pin flags on each one of those blocks that are a different color, and that tells the operators then when they're mucking that this block here is high-grade; this block has nothing in it.

So we're out there on the--it's pretty physical, too. You're not only on the computers; you're out there. Well, like today we went out putting ore blocks for two hours this afternoon, and you're climbing up and over, and the person with the rod and the person with the flagging and the stakes. It's getting pretty physical for an old fifty-one-year-old lady! [Laughs]

Swent: Today was a nice day to do it. But I know there are days when it's not so nice.

Underwood: You get those 104-degree days, and it's like 120 in that pit, I'm sure.

Swent: Yes, I'll bet.

Underwood: But they're real good about--I mean, if you get feeling like you shouldn't be there, they say, "Hey, let us know." Our boss is real good to make sure we're not overdoing it.

Swent: You said you're the only woman on this crew now.

Underwood: I work with three other guys on the actual survey crew, and then in the engineering department there's four or five other people besides our actual survey crew.

Swent: But are you the only woman in the engineering department?

Underwood: Yes.

Swent: And you learned all this just on the job?

Underwood: Yes, just on the job. And I mean, they're patient. The two guys that are actually the head surveyors, they just are real patient with you. When I first started learning that stuff, they were really patient. Yes, I have no qualms about the people I work with.

There could be. I'm sure there are some people you could get in with that wouldn't be that way. There are guys, I guess, in operations, like the actual truck driving. This is between you and I, right? [chuckles] The actual truck driving and things like that, I think some of those operators, you know, there are certain guys that are just, you know, not nice.

Swent: They make it hard on the women?

Underwood: [laughs] Yes. Anyhow, my thing is it's probably good that I'm in the crew that I'm in because you know yourself--I grew up in, like, the fifties and sixties, and women always sort of took a back seat to men. And I've always been willing to--as far as I'm concerned, my husband is the boss in our family, even though he treats me as--I feel I've been treated as an equal. And the same way with my dad. When it come to the decisions, my dad made the decisions. But he and mom talked it over. So I was sort of brought up with the old--I like to be on a pedestal, [laughs] personally!

Swent: A little bit, anyway.

Underwood: So it was kind of a shock, thinking, "Well, I guess I could--"

Swent: But it hasn't turned out to be--

Underwood: No, it's been really great, like I say.

Swent: Well, I imagine they recognize that you had a lot of experience.

Underwood: Can I tell you something off the recorder? [laughs]

Swent: Sure. You don't want it on.

Underwood: No. It's kind of a cute story. [tape interruption] I'm probably running off at the mouth too much.

Swent: No, that's wonderful. So you got them to respect women a little bit more.

Underwood: Yes. I have no problem with that department.

"Still Kind of a Man's World in Mining"

Swent: And you were holding up your end of the job.

Underwood: Yes. I kind of think, though, that it's still kind of a man's world in mining. I kind of see that.

Swent: Oh, it surely is, yes.

Underwood: And it's the same way. You know, it's like in agriculture, in the cattle world.

Swent: Although farming women have always been partners on the farm, I think. Maybe not ranching as much as farms, but--

Underwood: They would have to be, to survive.

Swent: They do, yes. So your mother was happy to have you working in the mine, was she?

Underwood: Well, she thought that was great, that it was a good job. She couldn't believe it. And it's kind of like, I've always thought of how lucky I really am because here, like, I have a high school education only--which I did well in high school. I had no problems there.

Swent: And you've got a lot of education working on the ranch.

Underwood: Yes, and, like, on the ranch. I mean, my husband and I kept books together, and I'd go talk to the tax man and did all that kind of stuff, but I had never really worked at anything. I got married when I got right out of high school. I worked a couple of summers in a little restaurant, but to come back down here and get paid the kind of money that I'm being paid, you know, it's amazing. About the only thing that I could have really done if I hadn't got this job was probably went to work at a restaurant or, you know. So it's really--

Swent: You enjoy it a lot more.

Underwood: Yes. Yes, I can remember working some extra work when we were in Oregon on the potato harvest. [chuckles] I got paid four dollars an hour and I did a heck of lot of work.

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Swent: --the people over there. Are they even aware that this is up here?

Underwood: Oh, yes, yes.

Swent: It hasn't had quite as much effect there.

Underwood: No, there's not anyone else right in that area that works up here. I notice when you get around, like, on the west side of the lake, where all the resort areas are the people there aren't really the native people.

Swent: No.

Underwood: And I don't think they're really aware of what a big thing this is. In fact, it's just like I've been to Napa at different times and somebody will say, "What do you do?"

And I say, "Well, I work at the gold mine in the north end of the county."

"Oh, they have a gold mine up there?" And they have no idea that it employs three hundred and something people.

Swent: It has more of an effect in Lake County.

Underwood: In Lake County.

Mining, a Productive Use of Marginal Grazing Land

Swent: Although there was opposition to it in those other places.

Underwood: Oh, yes. Well, you know, the thing about it, this country has never been anything but grazing country. It's just like the Manhattan area. We had the grazing on that, but it wasn't a real exceptional place to fatten cattle, so as far as I'm concerned, they've taken something and made it productive, helped give people jobs--and within environmental standards that they practice, I don't think they've done anything but good.

Swent: They haven't done that much damage.

Underwood: No, I don't.

Swent: One big hole.

Underwood: Yes. And they really do, as far as I can see, you know, they really watch it with their water, not letting any of it out that shouldn't be. They don't cut down any trees unless they really talk to the environmental--I don't know just how it is, but it's like they almost have to have a permit to do anything. [chuckles]

Swent: I imagine they do. I don't think there's any water that goes into Lake Berryessa from here, is there?

Underwood: No, no. They don't. Like, all those ponds down there. It's pretty well sifted out, filtered out by the time it goes. And I've noticed, like, the environmental department are always checking the water. They've got those wells in the ground that they check.

More Plentiful Wildlife Now Than Thirty Years Ago

Swent: You might tell me what you said earlier about seeing the bobcats.

Underwood: Oh, yes. The wildlife.

Swent: You drive up every day.

Underwood: Yes. But, you know, like, being a kid years ago, we were always out, horseback and stuff, even when we moved to Berryessa. See, my dad still worked for Gamble, so we were always here. They had that Knoxville ranch until they just sold it, to the mine.

Swent: A few years ago.

Underwood: And I believe that the wildlife is more plentiful now than it was thirty years ago or thirty-five years ago.

Swent: That's amazing.

Underwood: I notice on my drive from work bobcats running out of the dump areas that they have revegetated, and I've noticed--in fact, one morning I was coming to work and I see this thing--this was in the wintertime or late fall--and I see this thing in my lights, because it was still dark when I was coming to work in the morning, and as I got closer I could see it was a bear.

It was running right up the road in front of me. So I kind of speeded up because it was a small bear. [chuckles] It just loped along in front of me. Pretty soon it just kind of dove over and went underneath the fence.

Swent: And is the first one you'd ever seen?

Underwood: Oh, no. Like, when we were kids, I seen bears. In fact, my dad years ago--

Swent: But not recently.

Underwood: Well, yes, that was the first one I had seen recently. And here, like about six months ago or eight months ago, I seen one on the road. My husband and I were coming up the road and we seen one way up on the hillside. It's kind of strange because it was, like, in the middle of the afternoon, and it was out. It was a big bear.

Swent: You started to say about your dad.

Underwood: Yes. When they first came to work here on the Knoxville ranch, they had a lot of watering troughs and stock troughs, and they had what you call a float, just like you have in a toilet, where when the water goes down the float goes down, and that lets the--like, when the cattle would come in to drink, then as the water would go down, the float would work and fill the water trough again. Well, evidently, the bears--there was quite a few bears in the country back then, and they liked that. They'd get in those water troughs, and they'd hear that water running--they would bat that float. Then I guess it would kind of make a noise when the water spurts, and they'd just keep at it until they break the float off. Well, then the water would keep running, you know, so my dad had a lot of trouble with the bears knocking the floats off the water troughs. And he had to build boxes over the floats. It was kind of neat, because even today the watering troughs down there still have some of the old boxes that he built over the floats so the bear couldn't get in there and knock them around.

Swent: The cattle didn't do that.

Underwood: No, it was the bears. I've probably talked enough!

Swent: Oh, no, no. You haven't.

You said you saw more bobcats now than you did.

- Underwood: Yes. I see more bobcats, more deer than I have seen twenty, thirty years ago.
- Swent: Birds?
- Underwood: Oh, yes, a lot more birds. A lot of raptors, you know, raptor birds. Hawks. Yes, I just really feel like there's more wildlife.

Less Poaching of Cattle Now

- Swent: Do you want to say something about the poaching?
- Underwood: Yes. I think the poaching is a lot less because of the mine being out here. You know, the fact that there's people on this road more now than there used to be has cut down a lot on the poaching.
- Swent: You used to have trouble with that?
- Underwood: Yes. There used to be a lot of shootings--people shooting cattle and taking the hindquarters or whatever for meat. I think the last time they had that happen was about, oh, six years ago, five or six years ago, down here on the Knoxville property the Gambles had. They got caught. The sheriff's office did catch them. I guess they were taking the meat and selling it there in Lake County. And you know how he caught them? Somebody called in and said they thought someone was selling illegal meat, and the sheriff's department got a sample of that meat tissue, and they matched it with a sample of the head, the tissue that was still on the head of it, because they cut the head off and left it. It matched, and that's how they got them.
- Swent: They could tell it was from that particular animal.
- Underwood: Yes. But they just slapped their hands and let them off. They were already guys who were on parole. [chuckles] But anyway, I really feel that the wildlife is a lot more plentiful than it used to be back when I was a kid, even. And what's so neat, I drive up the road in the mornings to work, and I have the radio on. Never meet any traffic, hardly, going my way at that time of morning, and they'll be going on about traffic jams down in the Bay Area. I'll be driving along, and there will be some ducks swimming around in the water or there will be a coyote running across the road

[chuckles] or something. Yes, I've really got it tough, haven't I? [chuckles] The poor people down there in the city. They're in traffic jams, and I'm driving up the road, looking at the wildlife to work. A lot of people wouldn't believe that.

Swent: That is a beautiful drive.

Underwood: It is.

Swent: So close to all the traffic, but--

Underwood: In the spring it's really--have you ever been up there when the redbuds are all blooming in the spring?

Swent: No, I haven't.

Underwood: Oh, it's too much for words.

Swent: It must be gorgeous.

Underwood: And then down below where the old Knoxville Mine is, there's a lot of tamarack. We call it tamarack. Scattered all up and down the creek. And a certain time of year, in the spring, it's gorgeous. You just can't believe the colors. You couldn't even take a picture of it.

Swent: Do you get color in the fall, then, too?

Underwood: Yes. In fact, those same tamaracks, they kind of turn yellow and gold. And then there's a lot of the wild grape vines that grow way up into the trees. I don't know whether you noticed any of those or not, but in the fall they turn real pretty colors. Gold. Red and gold.

Roads Have Improved

Swent: Well, it's a beautiful drive. How long does it take you to get to work?

Underwood: It takes me just a half hour. And I don't drive all that fast, either. [chuckles] No, the road is a blacktop road, but it's getting pretty rough.

Swent: Was it blacktop before?

- Underwood: No. They blacktopped that probably sometime in the late sixties, I think. They blacktopped it. Always before, it was gravel, which wasn't all that bad because they'd have somebody on blades keeping it pretty smooth.
- Swent: But it was blacktop before the mine came in.
- Underwood: Yes. It was like chipped. It's not really blacktop. It was never really a road base like the mine put on this road here. And this road here used to be terrible! Oh, yes. It was crooked and narrow, dirt road.
- Swent: Well, the first time I ever came up here was a long time ago, and we came up from Berryessa, that way. There were fords across the creek there. Well, there still are fords.
- Underwood: Yes. I didn't have to this winter, but a couple of different winters I've had to go around, through Middletown and back around to work, which is an hour and a half instead of a half hour. [chuckles]
- Swent: When the creeks are up.
- Underwood: Well, they can get pretty wild. There's been several cars over the years wash off. People were stupid and drove out there.
- Swent: Did you know ahead of time to go around, or did you come up and find--
- Underwood: What I usually do is if you get to the first crossing you can pretty well tell whether you can make the others or not, so I just would go around. A couple of mornings--my husband has a four-wheel drive truck--he went ahead and brought me on up. But I wouldn't have tried it myself. He didn't have any trouble with it.
- Swent: So you think you'll keep this up until the mine closes.
- Underwood: Yes. I think I'll probably stay till the end now. I kind of think. Probably a year from now. I'm sure they're going to start cutting down, because they told us.
- Swent: Did they say they're going to start?
- Underwood: The end of '95. So I figure any time, probably like next summer, I'm sure we'll be slowing down some. There's the two other guys that have been with the company longer, and they really are true surveyors, so I'm sure they're going to

probably--myself and the other kid that works there, we'll probably be the first to go.

Swent: And it won't exactly break your heart.

Underwood: No. Like I say, I think we're getting enough stuff going again, and I love helping my husband. I help him with the cattle. We have stock dogs that are kind of a hobby. Plus they're a necessity in this country. So, yes, it's been a good thing. I feel bad for the people who, the younger people who started to work here. There's not a whole lot in this county for people to do that pay as well as this does. So I hate to see that. For myself, I'm not going to cry too much. [chuckles]

Employee Benefits

Swent: It's been good while it lasted. And you said you're vested for retirement after just seven years.

Underwood: Yes, just seven. So I don't have any problem.

Swent: It won't be a great deal, but it will be something.

Underwood: Oh, yes. And kind of a nice thing, too, is, see, I never have paid--well, I paid Social Security a couple of summers that I worked in high school, but this is the first Social Security I've paid in--so you have to have, what, forty quarters in just ten years? So I'm going to have that pretty close to nine years if I stay till next year at this time. So what I can do if I don't go to work somewhere else, my husband can pay me a wage, and I can pay in the other four quarters and at least have some Social Security. This is the thing.

Swent: And he's never had Social Security, either.

Underwood: Well, he has to pay self-employment Social Security.

Swent: Oh, does he?

Underwood: Yes. If you're self-employed, you have to pay. And it's hard on him, because, see, he don't have a company to match what he puts in, so he puts in the full 15 percent or whatever it is. But, yes, that's the thing about some of us women who grew up in the fifties and sixties and got married. And if you didn't work, if you just stayed home and raised your family. Well--

Swent: You didn't have Social Security.

Underwood: --so my mom--see, my dad died when she was fifty-five or fifty-six. Well, she couldn't draw any of his, even, until she was sixty-two. Well, luckily they were thrifty people and they saved money. But she had never worked outside the home anywheres.

Swent: Of course not.

Underwood: So it would really have been tough on her.

Swent: Yes, not everybody takes care of themselves as well as you do.

Underwood: Well, you've got to plan. It's kind of funny, you know. You tell a lot of the young people about why you're going to plan for your old age, and they kind of laugh at you, but I tell you, it gets here sooner than you think! [laughs]

Swent: It does. It really does.

Underwood: Yes, I look back and I go, where--like, my oldest son just turned thirty, and I'm going Aagh! I didn't feel too bad when I turned forty, and I felt kind of bad when I turned fifty, but when my son turned thirty--

Swent: That was a real blow?

Underwood: Yes.

Children and Grandchildren

Swent: And both of them are up in Oregon.

Underwood: In fact, I've got a first grandchild who's going to be a year old pretty soon.

Swent: Which son?

Underwood: Our oldest boy had a little boy.

[The following addition was made when the transcript was reviewed: Shane--two boys, Simon and Jonah; Clay--girl, Molly, and one due in April '00.]

Swent: Another boy. But you said you thought one of them might come back to ranching?

Underwood: Yes, I think our oldest boy talks like he's kind of getting interested.

Swent: Wouldn't that be nice.

Underwood: Yes, it would.

Swent: If he would come back.

Underwood: It really would. They're the ones that have the little boy.

Swent: And since your family has been here for more than a hundred years, it would really be wonderful.

Underwood: Yes. In fact, we're pretty sure that in January he's going to maybe come back down and help his dad, which really makes his dad happy because he's worked hard. It would be kind of nice to have a boy with him. It would be kind of nice for grandma, too! Spoil our grandson.

Swent: Sure. Now, you live in Berryessa?

Underwood: We rent an old ranch house there, on the east side of Lake Berryessa.

Swent: On the east side.

Underwood: Yes. There's only, like--she has some private--they call it a farm access road on the east side of the lake. And all your resort and all that junk is on the west side, so we're pretty well isolated over where we are. It's, like, one, two--there's like five ranch houses in a seven-mile stretch, so there's none of us live very close to each other, which is good.

Swent: That is kind of nice, isn't it?

Underwood: Yes. It's kind of an old house, but it's comfortable for us, and we rent it. And then my husband rents--in fact, he rented the Knoxville grazing from the mine after they bought that ranch from Gambles. Curt got the grazing lease on that.

Swent: On the land that Homestake owns?

Underwood: Yes. So that's even kind of neat, too, to be back on the ranch where my dad--he would be kind of proud of that, too.

Medical Care; Shopping

- Swent: Of course he would. And where do you go for medical care?
- Underwood: St. Helena. In fact, I'm going to the same doctor that I went to when my boys were born, which is lucky. We have an HMO with the company, and he was on their list, so I could still go to him. And then they have the St. Helena Hospital.
- Swent: I've heard it is a wonderful hospital.
- Underwood: Yes, it is. Seventh Day Adventists, I think, run it. Yes, both my boys were born there. Yes, so we're very lucky. It's about a forty-minute drive to the hospital.
- Swent: Is that all? From your house.
- Underwood: Yes. That's a pretty crooked road. But it's a good road.
- Swent: And where do you go for shopping?
- Underwood: I usually, like, on Friday nights once a week I'll just go ahead and go on into Clearlake because I'm already halfway there. It's a half hour from here to Clearlake and a half hour from our house to here. Now, if I do any really big shopping, I go on into Fairfield, which is--
- Swent: The other way.
- Underwood: Yes. And it's about an hour and fifteen minutes from where I live. So that's not bad. We don't have cable TV or anything like that, but we have electricity and we have an indoor bathroom. [laughs]
- Swent: What do you do for water? Do you have a well?
- Underwood: We have a well. In fact, I've got a pretty good garden going. I'm hoping the well is going to hold out. What I do is I use these recycled hoses that they're putting out? They're recycled tires, and they're making, like, a soaker hose, and they're real water-efficient. They just sort of tear, make like tears. And I'll set them up in a row and leave them on for twelve hours, and you don't have to turn your water on very much, and that just, like, leaks and soaks up the ground really well. So even though I don't have the best, well, I can be conservative and still water a garden.

"A Million-Dollar Deal"

Swent: Make the water go a long ways. Well, that's great. It sounds as if you've got a lot of good things going for you.

Underwood: Hey, I've got a lot, yes. I really have. I really feel--of course, I guess people who grow up in a city, they don't know any better. They probably think, "Oh, I couldn't live out like that!" But I tell you, I think I've got a million-dollar deal right now.

Swent: Yes, it sounds as if you have a really wonderful life.

Underwood: I do. I really do. Yes.

Swent: I believe it.

Underwood: I've got it all. Got a good husband, good kids, good dogs, good job, good horses.

Swent: Good health.

Underwood: Good health. That's the main thing.

Swent: What kind of dogs are they?

Underwood: Border collies. Border collie and Sheltie cross, one. Yes, my husband. You can't believe what he can do with those dogs with the stock.

Swent: They train beautifully.

Underwood: Yes. They're so smart. Like, a lot of the country he has leased is real brushy area and real steep mountain country and you wouldn't want to run a horse around the side of that, so he sends the dogs around. They stop the cattle. He trains all of his dogs to bring cattle to him. It's kind of a hobby. No, we don't have any kids at home. [chuckles] We're getting eccentric! [laughs] I've got a cat in the house. Never would let a cat in the house before, either. [laughter] Well, you know how that is. How many kids do you have?

Swent: Well, I have three.

Underwood: Oh, good.

Swent: And a bunch of grandchildren.

Underwood: A bunch of grandchildren, huh?

Swent: Yes. So I know what it's like.

Underwood: It's kind of lonesome when they leave home, right? [chuckles]

Swent: Oh, yes, indeed it is.

Underwood: My boys, we were really close. Of course, we had to work together all the time on the farm. Dad was kind of the boss of all the kids. [chuckles] Had to band together. Yes, they're good boys.

Swent: Well, I think the tape is just about to run out.

Underwood: Well, I've got to shut up. I told you I couldn't talk into one of these, right? [laughs]

Swent: Well, you did all right.

Underwood: I don't know whether I gave you the information about mining or not, though.

Swent: This has been wonderful. I was going to ask you if you remembered any stories about mercury miners getting sick or anything from the mercury. Were you worried about mining being dangerous?

Underwood: No. I don't remember ever--in fact, not 'til up 'til just--I never really gave it a lot of thought 'til about the time I went to work for Homestake. [chuckles]

Swent: Just when they left gates open.

Underwood: Yes, when they left gates open. That's the only hazard that I could think of.

Ranchers and Miners Face the Same Irrational Thinking

Swent: But you didn't have any prejudice about mining?

Underwood: Well, you know, I think the thing about it is that cattle people and agriculture people right now are facing the same kind of irrational thinking from a lot of the environmental groups as the mining industry.

Swent: That's true.

Underwood: So we kind of are sort of in the same boat together. It's just like anything. I think probably years ago, yes, there was a lot of bad stuff going on. I'm sure if people hadn't made a squawk about it, it probably still would be. But I think you have to be rational about what the world is all about, too. If we put all of our companies out of business, we're going to be a third-world country, and then what kind of environmental controls are you going to have?

Swent: There is pressure against cattle ranching.

Underwood: Oh, yes. It's terrible right now, especially on your, like, any of your government leases, like BLM land. Not so much here in California, but, like, Nevada, Idaho, Wyoming, eastern Oregon, anywhere where you have BLM--Bureau of Land Management--land, they're really putting a big squawk up back in the government, Congress.

Swent: Were you leasing from BLM up in Oregon?

Underwood: No. The land was private. We have one lease here at Lake Berryessa, and they kind of messed us up on that. All on the east side there they don't allow recreation as far as camping or anything like that, so they've always leased that property to the ranchers who have property bordering that on the fronts. And in the last couple of years they want to move us back, now. See, what we were doing was grazing clear to the water line, which gives us a big amount of property to graze because Berryessa hasn't been full for several years now. [chuckles] And Fish & Game said, "Well, we want to move you back above the water line because we want to build nesting mounds for geese," which really isn't the natural area for geese to nest, to start with. "We don't want the cattle down near the lake because they tromp out all the grass." Well, no grass grows where the water has risen and went back. I mean, it's just irrational thinking on their part. So that's the problem we've had.

But I don't know how familiar you are, like, with Nevada and probably even South Dakota, anywhere where the BLM ground is. 90 percent of your ranches, that is what they depend on. They may own 600 acres of private ground and lease 20,000 acres of BLM ground, so when they start trying to kick them off that, what's that going to do to the economies of those little towns that depend on--

Same with mining. When they kick mining out of BLM ground, what's going to happen to the little communities? You know, somebody sits back in the chair in New York or Washington or wherever and--

Swent: Decides these things.

Underwood: Decides that everybody ought to live in the city, right?
[laughter]

Underwood: No, I have no prejudice towards mining whatsoever because I can see what they're up against, just like agriculture. Well, it's like their pesticides, insecticides--which I agree, they probably use too many and they need some controls. But you have too many groups who want it all the other way, and it's just this irrational thinking. There's no balance to their thinking.

Swent: Do you think it's coming back to a little more balance now?

Underwood: I think that a common, ordinary person who's making a living is going to wake up to the fact that, well, we better put a stop to these people who are--you know, it's just like in the logging industry. It's the same sort of thing.

Swent: They've had a terrible time.

Underwood: Yes. The poor old guy who's out here trying to make a living, he's going to have to take some time and look around and say, "Gee, I better start writing my congressman. I better wake up to the fact they're going to put me out of anything to do for a living." [chuckles] Sure, it would be nice if we could live in this pristine, untouched utopia, but it's just not that way.

Somewhere I read they wanted to let South Dakota and North Dakota go back to the original--just move everybody out and go back to the original buffalo. [chuckles]

Swent: Oh, yes. There's a lot of pressure for going back. It's hard to do.

Underwood: It is. And as far as I'm concerned, when they started shoving people into the cities, that's when we started having our biggest problems. The crime and the pollution.

Swent: That's right. Well, a lot of people are moving into here.

Underwood: Yes, true. About time to move out! [chuckles]

Swent: It's not really crowded yet, but I noticed there are a lot of new houses.

Underwood: Well, I probably better let you get back to your--

Swent: No, no. But I guess we've covered just about everything. I've enjoyed this, Della. I hope you have.

Underwood: I've enjoyed talking. I don't like talking into tape recorders, but I just hope I didn't rattle off too much.

Swent: No, you didn't at all. It's been just wonderful.

Underwood: You know, it's like I say, the thing that's kind of sad is, and this is the reason that I think a lot of Dean, and I try to tell him a lot of stuff about the area.

Swent: Dean Enderlin [Homestake mine geologist].

Underwood: Yes. Like, our two boys, they don't really seem to be too concerned about history or anything. I think a lot of what it is, though, too, is families are so dislocated anymore, so they don't have any real interest in what went on here thirty years ago or forty years ago or whatever.

Swent: Well, when you're young, thirty years ago is forever.

Underwood: True.

Swent: But you've really got a connection here.

Underwood: Yes, I probably have been over more of this--like, being with the cattle and everything, have been over about all the range on horseback at one time or another [chuckles] looking for strays around here for a pretty good radius. My husband even more so.

Swent: You weren't looking for gold.

Underwood: No. You know, it's really funny. One time I can remember we were getting some cattle out of the Manhattan, and we rode up there horseback, and I can remember riding up there, and just about where the truck shop is down there now and kind of looking off out toward Hunting Creek, you know, at all the sagebrush and stuff and all the old tarweed growing around, and I said to my husband, I said, "Someday they're gonna find some use for this worthless country around here." [laughter] I said, "They'll make medicine out of the chamise brush or something." Never even gave a thought about the gold

underground. [laughs] How many million dollars' worth, probably, some day, right? You just never know. That's like with Bill Wilder, you know. I'm sure he didn't have any idea there was all that money sitting under there. [laughs]

Swent: I don't think so. He's a happy man, though.

Underwood: He's the same old Bill, though.

Swent: Yes. Well, that's the end of the tape. It's a good place to stop.

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Western Mining in the Twentieth Century Series
Knoxville/McLaughlin Project

Walter Wilcox

COUNTY SUPERVISOR, LAKE COUNTY, 1979-1995

An Interview Conducted by
Eleanor Swent
in 1995

Since 1954 the Regional Oral History Office has been interviewing leading participants in or well-placed witnesses to major events in the development of Northern California, the West, and the Nation. Oral history is a method of collecting historical information through tape-recorded interviews between a narrator with firsthand knowledge of historically significant events and a well-informed interviewer, with the goal of preserving substantive additions to the historical record. The tape recording is transcribed, lightly edited for continuity and clarity, and reviewed by the interviewee. The corrected manuscript is indexed, bound with photographs and illustrative materials, and placed in The Bancroft Library at the University of California, Berkeley, and in other research collections for scholarly use. Because it is primary material, oral history is not intended to present the final, verified, or complete narrative of events. It is a spoken account, offered by the interviewee in response to questioning, and as such it is reflective, partisan, deeply involved, and irreplaceable.

All uses of this manuscript are covered by a legal agreement between The Regents of the University of California and Walter Wilcox dated June 23, 1995. The manuscript is thereby made available for research purposes. All literary rights in the manuscript, including the right to publish, are reserved to The Bancroft Library of the University of California, Berkeley. No part of the manuscript may be quoted for publication without the written permission of the Director of The Bancroft Library of the University of California, Berkeley.

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It is recommended that this oral history be cited as follows:

Walter Wilcox, "County Supervisor, Lake County, 1979-1995," an oral history conducted in 1995 by Eleanor Swent in *The Knoxville Mining District, The McLaughlin Gold Mine, Northern California, Volume VII*, Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 2000.

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INTERVIEW HISTORY--Walter Wilcox

Walter Wilcox was Lake County's longest serving Supervisor on record, serving from 1979 to 1995, during the time that Homestake was seeking to obtain permits for the McLaughlin Mine. In 1976, he had left Thousand Oaks, California, where he owned and managed seven corporations and served on the air pollution committee of the planning commission. He and his wife came to Clear Lake for a vacation, fell in love with the place, and then bought and operated the Redbud Lodge in Nice, at the upper end of the lake. When he took office as a supervisor, Lake County's principal governmental challenge was to bring its general plan up to date and to restructure the board of supervisors. There was no viable county planning department; power companies were unable to file permit applications for a proposed geothermal power project at the Geysers because, as Wilcox says, "We didn't even have a piece of paper made out to fill out for a permit."

His previous experience, recounted in the oral history, included a rich variety of activities: labor union activity in Michigan, service in the Air Force, and business enterprises, all of which came into play in his years as county supervisor facing many changes in Lake County. He tells of his role in getting a power company to pay for improving a road leading to a new geothermal power plant, and of other mostly negative experiences as a county supervisor dealing with geothermal power projects.

Of the coming of the gold mine, he says,

The gold mine came softly...When it began to look like a reality, then there was a slow process of the excitement coming in...They didn't come in like gangbusters...You didn't even know they were in town for six months.

In summing it up, he says,

Nobody gave away the farm. Nobody sacrificed good development for jobs. I don't think Napa did. I don't think Yolo did. And certainly I don't think Lake County did.

The Wilcox interview took place in their charming lakeside home at Redbud Lodge on June 23, 1995. I arrived in the afternoon on June 22 and spent the night in one of their comfortable cottages. Walt took me for a walk along the lakefront and showed me the evidence of the terrible floods of the previous winter. Although not native to the area, he is clearly devoted to the welfare of Lake County and enjoys his way of life there.

The tapes of the Walter Wilcox interview were transcribed in the Regional Oral History Office and the lightly edited transcript was sent to him for review. He reviewed it thoroughly and returned it promptly with

very few changes for clarity and accuracy. The manuscript was corrected and indexed at our office. The tapes are deposited in The Bancroft Library and are available for study.

The Walter Wilcox interview is one of more than forty interviews which were conducted by the Regional Oral History Office from 1993-1999 in order to document the development of the McLaughlin gold mine in the Knoxville District of Lake, Napa, and Yolo Counties, California, from 1978-1999, as part of the ongoing oral history series devoted to Western Mining in the Twentieth Century. The Regional Oral History Office was established in 1954 to record the lives of persons who have contributed significantly to the history of California and the West. The office is a division of The Bancroft Library and is under the direction of Willa K. Baum.

Eleanor Swent
Project Director, Research Interviewer/Editor

November 1999
Regional Oral History Office
The Bancroft Library
University of California, Berkeley

Regional Oral History Office
Room 486 The Bancroft Library

University of California
Berkeley, California 94720

BIOGRAPHICAL INFORMATION

(Please write clearly. Use black ink.)

Your full name WALTER CARL WILCOX
 Date of birth July 18 - 1928 Birthplace FLINT MICHIGAN
 Father's full name WALTER CARL WILCOX SR.
 Occupation _____ Birthplace FLUSHING MICHIGAN
 Mother's full name FLORENCE WILCOX
 Occupation HOUSE WIFE Birthplace CHINTON IOWA
 Your spouse JUNE MAYIE WILCOX
 Occupation CONSULTANT Birthplace DETROIT MICHIGAN
 Your children Todd - Kim - MIKE

 Where did you grow up? FLINT - FLUSHING & DETROIT MICHIGAN
 Present community NICE CALIF
 Education HIGH SCHOOL - TEXAS TECH

 Occupation(s) SIG "TABLE OF CONTENTS"

 Areas of expertise COUNTY & STATE GOVT.

 Other interests or activities BOARD OF DIRECTORS SUTTER LAKE 1950
BOARD OF DIRECTORS BANK OF LAKE COUNTY
CHAIRMAN MEDICAL POLICY COMMITTEE - SUTTER LAKE 1950
 Organizations in which you are active _____

INTERVIEW WITH WALTER WILCOX

LAKE COUNTY SUPERVISOR, 1978-1996

[Date of Interview: June 23, 1995] ##¹Childhood in Michigan

Swent: We're going to begin, then, by just finding out what you did before you came to Lake County and if you'd like to tell me where you were born and something of your early years.

Wilcox: Yes. I was born in Flint, Michigan, in July of 1928--Flint being a factory town--and ultimately moved to Flushing Village, which was the fourth generation for Flushing Village, and lived there, which was farming--berries, corn, primarily.

Swent: Were your family farming?

Wilcox: That's right. My grandmother and grandfather. Then moved back to Flint in later years while my dad worked in the factories and grocery business.

Swent: Tell a little bit about your father's work. I think that's relevant.

Wilcox: My father went into the navy when he was seventeen, and when he came back from the navy, nineteen. Married my mother. She was fifteen. She was a devout Catholic. My father's parents were devout Methodists. And neither came to the wedding because of the religious conflict. My dad was a factory worker and grocer. He was blackballed in both trades in the State of Michigan because of his activity towards attempting to unite his fellow workers.

¹## This symbol indicates that a tape or tape segment has begun or ended. A guide to the tapes follows the transcript.

The Depression; Unionization in Factories

Swent: And this would have been about when?

Wilcox: This would be during the thirties, probably from '33 through 1939. What he did prior to that I don't know.

Swent: The beginning of the Depression.

Wilcox: Right.

Swent: So times were hard.

Wilcox: Right. We even lived in--I believe it was called Uniontown, Pennsylvania, for a while. He was in the grocery business there. But I was just a baby, and I don't know how we got from Flint to Pennsylvania and then back to Flint again.

Swent: When you say he was blackballed, what do you mean?

Wilcox: Because of his activity in trying to form an organization with his fellow employees in the factories.

Swent: What factories were these?

Wilcox: This was General Motors, Fisher Body, the [AC] spark plug--it's a famous spark plug now--anyway, spark plug factory in Flint. The major factories in Flint had what they call a blacklist--the manufacturers, the corporations--and if your name was on that list--I could relate for a better understanding, perhaps, the blacklist that was put out during the investigation of Communism in the movie industry. Writers and producers and so forth were blacklisted. They weren't allowed to work, couldn't get a job then in those areas. My father couldn't get a job in the grocery or the manufacturing business, factory business, because he was considered a troublemaker.

In 1940 we moved to Detroit. My dad was an alcoholic until I was fourteen. Well, he was an alcoholic all of his life, but he joined AA and was a recovered alcoholic. He got his job in Detroit. He went to Detroit, and he climbed over the fence at the factory and walked into the drop forge department and tapped the man on the shoulder that was feeding iron to the furnace and said, "They want to see you at the front office." So the guy left, and my dad began pushing steel. The office was like a quarter of a mile away--the factories were huge--so by the time they caught up with him, he had pushed more steel than they had

seen pushed, and that's how he got his job. He ultimately became the superintendent at Timken-Detroit Axle.

He declared his alcoholism. He was very open about it when he'd apply for work. At one time his employer, Timken, did a background check on him, and the response from his prior employer was that "If you hire him, he'd be the best man you've ever had, if you can keep him sober. Unfortunately, we couldn't." Was the statement on the referral.

Swent: You said, I believe, though, that he actually personally knew the founder of AA?

Wilcox: Yes, Dr. Bob, yes. He had met and talked with Dr. Bob. We were now living in Detroit when he joined AA.

Swent: This must all have had quite a profound effect on your childhood.

Wilcox: I think more on my sister. My sister is four years older, and it had more of a negative effect on her. She was more aware of the situation than I was.

Swent: I was thinking of the labor situation as well as the alcoholism, both.

Wilcox: But at my age then, everybody in the neighborhood was in the same category. I never, ever--did not have shoes. My dad was a very hard worker, and any job he got he moved up very quickly, but once he did that, then he felt justified in drinking and that made him lose again. So it was this back and forth. I was too young [for it] to have any great effect on me.

Swent: You might expand a little bit more, now, on his labor organizing and your part that you mentioned in the strikes and so on.

Wilcox: Yes. It was either '36 or '37 when Walter Reuther took a group of men up into northern Michigan, into the forest area.

Swent: Was your father one of them?

Wilcox: No. No, he was not. And trained them in strike-breaking and sit-down strikes, et cetera, et cetera.

Swent: Strike-breaking?

Wilcox: Strike-breaking. Because they had to know what to expect.

Aiding Strikers at the Flint, Michigan, Fisher Body Plant

- Swent: Oh, I see. But they, themselves, were not breaking strikes!
- Wilcox: Oh, no. Oh, no. I guess it would be like going into the service, and they shoot at you in basic training, too, [chuckles] to know what to expect. Organizing, union organizing. And I participated in that as one of a number of children. We only lived a few blocks from the factory in Burton Township in Flint, Michigan. Our fathers were making blackjacks, and all our mothers were packing sandwiches and putting up peaches--or whatever the families had--in the same sack and tying them with store string in those days. And then they'd take those sacks at night, the men would, with us children, to within a few blocks of the factory.
- Swent: Were the men working? Were these employees at the factory?
- Wilcox: No. Many of them had been. Some of them had also been blackballed in the state. But many of them were out of work completely. Some were working as laborers someplace or what have you, but we all in the community donated things--food, et cetera.
- Swent: What is a blackjack?
- Wilcox: A blackjack. [chuckles] A blackjack is a leather-covered piece of lead in the shape of a teardrop. It can be elaborate. These weren't elaborate at all. The top of the teardrop was the part you held in your hand, and it would flop a little bit. It had like a little spring, the leather, and you hit someone with it, and they'd go down.
- Swent: What was the purpose of the blackjacks?
- Wilcox: For--if the factory was ever broken into, it was the only--other than things in the factory--it was the only weapon the strikers in the factory could carry hidden, if you will, in a pocket, in a shirt--in a shirt like this [demonstrating]--that they could use to protect themselves.
- Swent: And at this time they were striking, were they?
- Wilcox: The third shift was locked into the factory. They locked themselves into the factory. They welded the gate shut on the factory. Left their families and said, "Either we die in here or we get some respect, some rights and safety."

You have to remember, in those days there wasn't anything such as, "Gee, we've got to do something about that. That's not safe." In Flint, Michigan, you couldn't find a young man fifteen years old without the loss of fingers, hands, even toes and feet, from working in furniture factories in Grand Rapids, Michigan. So it was not easy working in factories in those days.

Swent: Which factory was this?

Wilcox: This was the Fisher Body--actually Body by Fisher was the name of it--in Flint.

Swent: And it was only the third shift that went out on strike?

Wilcox: Only the third shift, right.

Swent: They were locked in, and then the other shifts were also locked out.

Wilcox: Oh, absolutely, absolutely.

Swent: Did it spread to any of the other factories?

Wilcox: Yes. In memory, I don't--because my whole focus was on the Fisher Body plant, as a kid, so the rest of it, how far it spread, I don't remember. I'm not even sure I was even aware of it.

Swent: But you were there helping with packing these bags.

Wilcox: Yes. What we would do--they'd give these bags to us boys, and we'd sneak through the lines, the lines being--the beginning was the police. They weren't nearly sufficient to handle the problem, so the corporation sent down south for what were called goon squads. These were big, ugly so-and-so's from down south, who were starving, themselves, during that period of time and would do anything for work. They came up and tried to break up the strike, with a no-nonsense attitude of there was no discussions or debating or conferences. That got so far out of hand, the riots, that the National Guard was ultimately called out.

As an aside, my now father-in-law at that time was in the National Guard. His brother was one of the workers on the third shift, locked inside, so it was brother against brother. And, again, at that time, the corporations controlled the governor, and the governor controlled the National Guard, so in effect the National Guard was working on behalf of the corporations, the factories, the manufacturers.

So we'd sneak through those lines, and we'd throw these sacks through the windows in the factory. The factory was three stories high, and the windows were about ten inches by twelve inches. This whole mass of windows, for almost three-quarters to one mile long.

Swent: One of those old-fashioned brick buildings, I suppose?

Wilcox: Yes.

Swent: With lots and lots of windows.

Wilcox: Beautiful brick buildings, with just nothing but those glass windows. So we'd throw these sacks, and the blackjack would break the window and get food inside and also give them a weapon inside, if you will, that they could carry undisclosed and with them at all times, wherever they were. My father was, as I say, blackballed. But that was a fascinating experience.

I had sold magazines. I knew the area very well because I sold magazines across the street from the factory, for that three-quarters of a mile, a mile long, in the bars and restaurants.

Swent: What were the magazines you sold?

Wilcox: Saturday Evening Post, Ladies Home Journal, Country Gentleman, and Liberty magazine. I won baseballs and bats and so forth, depending on how many I sold. I sold them door-to-door as well as along the factory there.

Swent: You were how old then?

Wilcox: Oh, gee. Let's see. I was eight years--eight, nine years old.

Swent: So you were hearing a lot of talk.

Wilcox: Oh, yes. Oh, yes.

Swent: From all these people.

Wilcox: Yes. But keep in mind in those days, too, the bars were not as we know bars now. The beer gardens were places that families gathered. It was the place that politics were talked about. It was the place where whole families would meet--men and women with children. It was a place where somebody would have a harmonica or an accordion, and there would be dancing. You had community in those days. Something that brings people together seems to be when we all have a mutual problem as relating to jobs, work,

health, and so forth, that the whole community has. It brings us closer together.

Swent: What about the schools? Were the schools teaching anything about what was going on?

Wilcox: No. The schools pretty well stayed away from--again, during the Depression, the teachers were having their own problems, and there wasn't any talk in school other than among us children and with our teachers. I don't remember any teacher voicing support or non-support, either way.

Swent: You mentioned that there were three teachers who had particularly influenced you all.

Wilcox: Yes. That was in my later life. My first school was a four-room school and it went up to fifth grade. My second one was a two-story wooden structure, and the way you got to the second floor was an outside stairway, outside the building. Very unsafe as far as fire was concerned.

Swent: Where was this?

Wilcox: This was again in Burton Township in Flint, Michigan. Then there was a brick school that I just started at when we moved to Detroit. The teachers--when I went to Detroit is where I began getting into a little problem.

Swent: When did you go to Detroit?

Wilcox: I went in 1941, I think it was. My dad went to Detroit, found a job. I told you about finding that. He was still drinking at that time, and my mother went with him when he got the job, to keep him sober, to make sure he held the job. And he got an apartment in Detroit, and so my sister, who was four years older than I am, she was the head of the household, so to speak. My sister and I stayed in Flint by ourselves for three months. Then I went to join Mom and Dad in Detroit, and my sister followed three months later.

Swent: Was the defense boom beginning?

Wilcox: Yes.

Swent: So they were hiring more.

Wilcox: Yes, yes. That was the beginning of the war--

Swent: Preparation.

Wilcox: Right. I can remember someone coming down a gravel road in Flint with a loudspeaker, saying the war had been--let's see, "We've been attacked," I guess by Japan. "We've been attacked by Japan."

Swent: So you were thirteen, I guess? The fall of '41.

Wilcox: Yes, twelve, thirteen. So we moved to Detroit. My dad worked in the factories there, and my schooling went on in Detroit.

"Roosevelt, Reuther, and God"

Swent: Was he a union member?

Wilcox: Oh, yes, absolutely, absolutely.

Swent: UAW?

Wilcox: UAW. CIO later, AF of L-CIO.

Swent: Was he ever a Communist?

Wilcox: No. In those days back in Flint, going back there, there were three--there was Roosevelt, Reuther, and God. And not necessarily always in that order. Those were the names, you know, that everybody--. Also in those days--many people don't remember, and I remember only because I was told--the Bund, the Nazi Party, the Brown Shirts, held a meeting in New York. What was the name of the big boxing arena in New York?

Swent: Madison Square Gardens?

Wilcox: Madison Square Garden. The place was packed with people. The walls were lined with Brown Shirts. And when anyone spoke against them, they were thrown out of there. A lot of people don't know that. Here in the United States of America. But in those days, Communism wasn't the big bad wolf that it is, has been, in our era. People were out of work, they were starving, they were looking for an alternative on how to get out of this, and so many organizations sprung up. Alf[red Mossman] Landon, Socialist. I don't know if you remember Alf Landon.

Swent: Oh, yes, I certainly do.

Wilcox: You mentioned earlier about in school, the teachers and the relationship to the strikes and so forth--the politics. One

thing I do remember in school was when Alf Landon ran against Roosevelt.

Swent: That was '36?

Wilcox: Boy, I'm not--sounds right, because I was in the four-room school yet. We did go down to the railroad station, and Alf Landon was coming through on the train, and I remember we were given little buttons, and we were to yell, "One, two, three, four, who are we for? Roosevelt, Roosevelt, ray, ray, ray. Five, six, seven, eight, who do we hate? Landon, Landon, boo, boo, boo." So now that we're talking about it, there was an element of--gee, I must have been in fourth grade, something like that, but I do remember that very distinctly now.

Swent: That's very interesting. So this was the teachers who were--

Wilcox: Yes. So people were joining. My dad did not join. My dad was offered to get into politics at that time, and I can remember he and my mother talking about that. He was reading books on metallurgy--this was when he was out of work--to become more knowledgeable, and--I've lost my train of thought now.

Swent: He was asked to go into politics.

Wilcox: Yes. At that period of time, he was asked to go into politics. I don't remember in what capacity, but I remember my mother and he talking about it, and him talking about--deciding no, that they were just using him, that they were just trying to use him. So he never did do that. To this day I don't know specifically what that was about.

Youth Gangs in Detroit; Leadership Experience

Swent: Then your family moved to California.

Wilcox: Yes. We lived in Detroit for a number of years. That's where I had the three teachers. I was getting into a little problem there, and the three teachers hung in there with me and would discipline me.

Swent: Do you want to be more explicit about the problem?

Wilcox: Yes, well, [hesitates] I guess Detroit was a different experience from--we didn't have gangs in the factory town of Flint. That probably had to do with the age group. I don't even remember

older kids having gangs. We were just neighborhood kids in one area. Gravel roads, ponds around the place here and there, floods sometimes, and gardens. Everybody ate out of gardens.

So Detroit was a totally different environment for me that scared me to death. My first day in school in Detroit I went with clean overalls and new shoes, and I was the only one in class with overalls on. All the rest had pants and shirt.

Swent: These were bib--

Wilcox: Bib? Oh, you betcha. Something to hang your hands in. But I quickly became orientated to city life and the neighborhood, and then to prove myself worthy I did things that I'm not proud of at all. I became sort of a leader in the neighborhood ultimately, and my leadership was based on my fear, my fear that they'd find out how afraid I was, and so I would do things that were very daring. I never hurt anyone, thank God. But anyway, suffice it to say my school was a mixture of many of the kids from school. The fathers and then older brothers were in what was called the Purple Gang in Detroit.

Mafia and Ku Klux Klan Activities in Detroit

Swent: What was that?

Wilcox: That was an Italian and Jewish group of men. It was, I guess, what you'd call a Mafia, Cosa Nostra here now. Also at that time there was very much activity with the Klansmen--Ku Klux Klan. At that point in Detroit they were against the Catholics--there weren't too many blacks in Detroit at that time--and the neighborhood gathered one night when they heard there was going to be a Klan meeting up on the hill, and a cross burning. And all the Italians and others got together, surrounded the hill, and then marched up the hill, and just beat the bejeezus out of everybody up there, and that was sort of the end of the Klansmen against Catholics.

So our school was a mixture of many, many--I guess you call a vegetable soup of--and I wasn't Italian, and I wasn't German, and I wasn't Polish, and I wasn't Yugoslavian, I wasn't Croatian, I wasn't Lithuanian, I wasn't Romanian.

Swent: You were Catholic, however; or were you?

Wilcox: No. On my own I joined the Catholic Church when I was fourteen, so at that point--

Swent: That gave you some identity with that group.

Wilcox: Right. And of course our neighborhood was Italian basically-- Romanos and et cetera, et cetera.

Swent: You might mention your singing.

Wilcox: Yes. [chuckles] In the middle of all of this, I had--one of the three teachers I'm talking about who saved me was a music teacher. And I don't remember exactly how she came to know that I had a voice, but she asked me to be in the music class, to take music. And I did like to sing, just a natural thing. And so I was in class with, I think, twenty-two girls in a music class. Nobody--at least to my face, none of my friends chided me about it seriously, but I was very sensitive about being chided. I was a soprano soloist, and I sang in the cathedral in downtown Detroit, the Episcopal cathedral, at high mass. But I'd go to high mass first as a Catholic and then catch the bus and go downtown and sing at the cathedral for about two years. My voice changed and I have never taken up singing since. We also sang with the Detroit Symphony Orchestra the "Hallelujah Chorus" under Karl Kreuger, conductor. And there's a recording of that somewhere.

Move to California

Wilcox: Ultimately we moved from Detroit to California. My dad had joined AA, had a number of years of sobriety, had become supervisor, superintendent, at Timken-Detroit Axle, and when my mother wanted to move to California (she'd come out for vacation here with relatives for about a month and just fell in love with it), my dad dedicated the rest of his life to his family with his sobriety, and so he quit his job, and we moved to California in 1945--Woodland Hills, southern California, northern end of San Fernando Valley.

Before we moved, I quit school in the eleventh grade because I could make more money than the teachers were making in those years. I began working, And so we came to California. I worked with my father mixing mortar in mortar boxes for Italian and Polish masons.

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Wilcox: Ultimately I went back to Detroit for a year, worked in the factory there for a while, found out I didn't like that, and when I came back to California a year later--oh, I had worked at hospitals as a ward attendant and then decided I wanted to be a male nurse.

Service in the Air Force, 1948-1952

Wilcox: But in those days any male that wanted to be a nurse was sort of looked on questionably, so I joined the Air Force to go in the medics. Decided that my career was going to be medicine, and I thought if I could go in the Air Force and get into medics, then when I got out I could take the rest of my studies and become a nurse. But it didn't happen that way. They made a flight engineer out of me instead. I got my GED in the service. I attended Texas Tech in Lubbock, Texas. This was during the Berlin Airlift that I was in the service.

Swent: That was in the late forties.

Wilcox: I went in in 1948 and came out in 1952. I was stationed over in the Far East on Guam, Saipan, Iwo Jima. And that's where I became a flight engineer. C-54s. And then later, when I came back to the United States, at Lubbock, Texas, I was in Reese Air Force Base in training command, training cadets to be pilots. If you want a harrowing experience, that's one--in what was called a single-engine and then dual-engine aircraft. The single-engine at that time was called the T-6 and the dual-engine was the B-25 aircraft, and B-25 was the ship that Jimmy Doolittle bombed Tokyo from aircraft carriers with. That became the bomber training aircraft for the Air Force in those years I'm speaking of, so I engineered the bombers in training command, at the same time, attending Texas Tech.

Marrying June Poye, 1951

Wilcox: June and I were married in 1951. She's from Royal Oak, Michigan --a suburb of Detroit. While I was in the service she began to write to me, even though I had left Detroit in 1945 and here it was 1949 and we began writing back and forth.

When I came back from overseas, I was stationed at Selfridge Field for a while, which is a fighter base on St. Clair Shores.

I'm trying to think of the town because it had sulphur baths there.

Swent: Was this Michigan?

Wilcox: Yes. President Ford is from there. Mt. Clemens--Mt. Clemens, Michigan. I was stationed there just for six months on what they called pipeline. You come back from overseas and they say, "What are we going to do with him?" And they had just reopened Lubbock Air Force Base and renamed it Reese Air Force Base and started training command, so I was sent there. Ultimately, June and I became engaged and I got to fly all over the country in training command--you took cross-country flights--so I would fly quite often to Michigan and woo her.

Then I found that it was tough competing with the other fellows, so I invited her out to California; my mother and father invited her out to California. I took a thirty-day furlough, and she came out and during that thirty days, well, we became engaged. We spent my last six months in the Air Force together, went back to Detroit after I got discharged, and I worked in the factories again.

I couldn't find a job anywhere. I went door to door and I would tell them, "I'll work for you for a month, and if you don't like my work you haven't lost a thing. You don't owe me a penny. If you keep me on, then you pay me for the month and I go on."

Working as a Welder in Detroit

Wilcox: I worked for a cleaners, hauling cleaning around, and I ultimately went to welding school for two weeks and got a job welding. I began putting in my application in the factory. Said I was a welder for seven years in California, and I had only welded two weeks. Darned if I didn't get a call. I mean, everybody was out of work in Detroit in '52. We used to say when grocery stores closed in Detroit, it was getting rough, but when the beer gardens closed, it was really bad, and beer gardens were closing.

But [chuckles] I went in for the test--nine men in a row, doing production welding--and the foreman had never welded in his life. He was a foreman because of seniority and the layoffs, and he came from the bending department into the welding department as foreman. So he told these men to give me a test, use their equipment, and the men gave me a mask and everything. He said,

"What do you want the machine set at?" and I said, "I don't know." And he said, "How long have you been welding?" And I said, "About two weeks." And he said, "I'll set the machine for you. You strike the arc." He said, "Do nothing. Just let it drop in. Don't touch the metal or you'll blow a hole in it." So I did what he told me. He told the foreman, "The kid's okay," so the foreman said, "Okay, you come in on the third shift."

The foreman at the third shift had been a welder for many years. I lasted about two minutes. And he asked me how long I'd been welding. I said, "About two weeks and ten minutes." And I said, "But I'll work through my dinnertime, I'll work on the breaks. I know I can do it." And he said, "I can't afford you." But the other eight guys on the line said to him, they said, "Look, we'll make up his production for him for a week so it don't hurt you a damn bit." The foreman said, "You're right. If you guys want to do that, fine. I'm going to get production."

So they told me, "For a week, we'll make up your losses. At the end of the week, if you haven't cut it, you're out." Well, I cut it at the end of the week. That's what I was telling you last night. They made me steward.

Then came the union, because their machines would break down and we couldn't get top production and top pay because their machines were old. They were making bomb shells. I said, "Next time their machines break down, we're stopping work, have a work stoppage, until we--." We wanted, if we got a production up to a certain point, and the machines broke down, we'd still get top pay, because it wasn't our fault. Okay? And that seemed fair. I said, "Sure. What do I know?"

So the machines broke down, so I said, "Everybody quit." Great. And that's when I got my pink slip I was telling you about last night. Got called upstairs. The manager went back down, went to work. Douglas Lowenson was the name of the plant. And I worked there for another four months.

June and I decided--I decided we might starve to death, but we're sure as heck not going to freeze to death. We're going to move back to California. So left there.

You know, when I did that and I went in and told the guys I was quitting, they said, "You'll get another job someplace."

I said, "I'm moving back to California."

"What are you going to do there?"

"I don't know."

"Gee, you're giving up a good job and you don't know what you're going to do?"

It scared these guys. And I remember this one fellow saying, "Gee, Walt, I wish we could move to California."

I said, "Why don't you? What's stopping you?"

"Well," he said, "I've got four kids." He said, "You don't have any kids."

I said, "What difference does it make?"

And he said, "Well, I've got too much seniority to give up here, Walt."

I said, "How long have you worked here?"

He said, "Six years."

Back in Detroit, you worked your lifetime. You graduated from school, married the neighborhood girl, lived with your parents or her parents in your parents' or her parents' house. You said you're going to work in the factory just for a year, just to save enough money, okay? And then ultimately there would be a layoff, there would be this. All of a sudden your wife is pregnant, there's children coming, and twenty years later you'd say, "What happened?" You're still working in the factory, if you're lucky, without losing your hearing or losing a limb or something or your health. And it perpetuates. Big Brother took care of you. When you were laid off from the factory, you didn't go out looking for another job, except handyman jobs and so forth, because Big Brother is going to call you back.

Back to California and Rejecting a Job at Lockheed

Wilcox: I didn't want to live that way. So we moved to California. Got a job for Lockheed as an inspector of hydraulics, in-flight inspection of hydraulics. You know, you take a plane off the line to take it up, and I checked the hydraulics. \$1.38 an hour. I applied for the job, I got the job. I loved to fly. [chuckles] When they called me in, that's when I asked how much the job paid, and they said a \$1.38. I was getting \$2.58 welding

in Detroit, and I said, "How do you expect a man and a wife to live on \$1.38? That's ridiculous."

And they said, "We've got families here, big families here, working for less."

And I said, "Not me." I ended up working for Standard Oil pumping gas at something like \$400 a month in Encino.

Swent: So you didn't take the Lockheed job?

Wilcox: No. At that lousy pay?

Entrepreneur in the Booming Septic Tank Business

Swent: I see. I misunderstood. I thought you had taken it.

Wilcox: No. I had some pride. As much as I liked to fly, \$1.38 after making \$2.58 back in Detroit--but I ended up pumping gas. I looked around. It was the boom. It was the latter part of '52. What am I going to do? And actually my father at that time was a manager of a septic tank company, and so we decided to go into business together. So dad quit there, and we put \$5,000 together and went into the septic tank business. Never made a payroll on time the first four years, but you could get a check out on Friday and the bank wouldn't catch it 'til the following Wednesday or Thursday because they didn't have computers then. After four years we made our first payroll with lots of money in the bank. An exciting day. Within seven years we had five corporations, and within the next two years we had seven corporations.

Ultimately I bought my dad out. He had five heart attacks, and he retired. Ultimately I sold them. Actually, I folded three and sold the other four. Went into the pool business for almost two years. Sold it. Studied the--June and I did the Marriage Encounter weekend about marriage communication, and we decided that Thousand Oaks needed another Bible, religious, bookstore. It only had one, and it was very poorly managed. So I studied the business for two or three months, and we were waiting for a lease. We found a location, and the man who had this store in a shopping center, jewelry store, wasn't sure whether he was going to renew his lease or not. That's how we came to come up to Lake County. I said, "We better take a vacation for a couple of weeks because if we open the store it will be a long time before any vacation."

Swent: Did you ever have the religious bookstore?

Wilcox: No.

Swent: It was something you thought you might do.

Wilcox: Well, we were ready to go into it. We were just waiting for this fellow to decide whether he was going to renew his lease or not. He had a month yet to go on his lease before he had to make that decision.

Buying the Redbud Motel in Lake County, 1976

Wilcox: So we decided to take a vacation. So we came up with our boat, and somebody told us about Clear Lake. We'd never been any further north than San Francisco. Came up here. Stayed just two doors down here, Tiki-Tiki Campground. I got talking to the lady next door that owned that place. That place used to be immaculate, immaculate. Addie Koitch lived here thirty years. Addie and John Koitch owned the Tree Haven Resort next door to the campgrounds we were at. I got talking to her one morning, and we loved the lake, we loved the trees, and the surroundings. The lake was just mind-boggling, absolutely mind-boggling to us. Back down south, if we wanted to get a campground in Lopez Lake, which is a three-hour drive to Arroyo Grande--a three-hour drive pulling our boat--you'd have to be there by Thursday noon or you were in the overflow. If you got there by Friday, there just wasn't any place at all. And that's the way most lakes became in Southern California unless I'd go up to the Sierras and go backpacking up in the mountains, in the mountain lakes up there and so forth. But other than that we couldn't. So here was this big, huge lake. So we stayed here three days, went through San Francisco, visited friends, stayed there for a while; San Luis Obispo, some other friends; Santa Barbara, some other friends.

Ultimately got home. We talked about, "Gee, wouldn't it be nice to have a place and live up there and get away from down here." Our kids had hardly ever seen a black person. And Thousand Oaks was a beautiful place: you belonged to the "right" clubs and the "right" organizations, and you were with the "right" people, and everything was just "pretty" and "right", and it was just too comfortable. I don't know if it was a guilt complex.

Anyway, we found out a week later that the guy was going to keep his location where he was at. He wasn't going to give up

his lease, so June said, "Well, what do we do?" She said, "We've got the brochures we collected up there at Clear Lake. Do you want to talk about it, or should I throw all that stuff away?"

I said, "Well, let's talk about it."

This place was for sale. Addie had told us it was for sale, and we'd stopped by to look at it. And the owner, Mr. McWilliams, was up in the front cottage. He had just polished the floor in there. So here comes two middle-aged people, one with a beard--myself, which I'd had for fifteen years, and not for political or religious reasons--it was to hide my Adam's apple here--but in a green pickup truck, saying, "I understand your place is for sale." Well, this was sort of the hippie time, too, and they didn't cotton to hippies up here, or anybody with beards. Anybody with a beard was a hippie up here at the time. Well, he wouldn't show us the place. He said, "I don't have time." He said, "I just polished these floors. You can't look in here, and I don't have time to show you the others." He said, "My realtor lives down the street."

So we saw her. Little old lady. Eighty-seven years old. Very short. Big humpback, like this. [demonstrating] She'd been a postmistress here for many, many years. When she got to be seventy-six, she couldn't be postmistress anymore, so she went to San Francisco, got a motel, studied real estate, got her real estate license, came back here, worked as a realtor. Two years later, she went back and got her broker's license, came and set up an office down the street. And she and June fell in love immediately they saw each other. It was just like God had made them both at this time and place to meet.

We made an offer on the place. She called three days later, and she said, "The offer has been accepted." We did not find out until after escrow closed that she had given up her total commission, that they had had another offer that was for the amount they wanted for the place. We offered less, and she by law had to give them both offers. But she said, "I just felt I wanted you people here in Lake County. You'd be good for Lake County." And she said, "Yes, I gave up my commission." We found it out through the owner. "I gave up my commission," she said. She has since died.

Managing Seven Corporations in Southern California

Swent: You might just go back a bit and tell a little bit more about-- you very quickly had said that you had the septic tank businesses and the seven corporations and then a pool route after that, but you had told me yesterday when we were talking that you had really gotten kind of bogged down with all of the managerial responsibilities.

Wilcox: Oh, yes.

Swent: And just briefly, why did you get so fed up that you sold and closed your corporations?

Wilcox: It was--I was working seven days a week, twelve, fourteen hours a day. I lived, breathed my work.

Swent: And these were all septic tank corporations?

Wilcox: No, no. No, no. Rocket Rentals. Heavy equipment. We had seventeen-ton rotary drilling rigs. By then we were in the mainline sewer business. We started with septic systems. We went into manufacturing of the Superior Tank. We had an invention for lining a hole from the top down. See, these people--

Service on the Planning Commission in Thousand Oaks

Swent: I just want to bring in the fact that when all the Homestake stuff began, you were really well acquainted with so much of this--

Wilcox: Oh. Oh, I see. Yes, yes.

Swent: --equipment and also the permitting.

Wilcox: Yes. I was on the planning commission in Thousand Oaks before I came up here. Thousand Oaks was thirty-five square miles of pasture land. It had been known as the Conejo Valley. Had just started the master planning of that. State law had just come into effect that every county and city had to have a master plan, a general plan, so I was on the planning commission there. Became politically involved in Thousand Oaks. Ran for city council. Lost by forty votes. The very mean, horrible, horrible campaign.

I'd been campaign manager for someone who beat out the man who beat me out two years later. We won by three votes from him. He went to court on illegal electioneering and recount, and as it turned out, well, we weren't illegally electioneering. Had to do with signs too close to the polling place. And so that went defunct. On the recount we won by six votes! And two years later, well, I ran for the office and lost to the man who my candidate won against. I lost by forty votes.

Burned Out, Running Too Fast

Swent: So you had considerable political experience before you came up here.

Wilcox: Yes. I owned a service station during that period of time. I just became burned out. I was running too fast, too many things, It got to the point that nobody could do it as good as I could do it. Nobody could answer the phone as well as I could answer the phone at the office. Nobody could sell a job better than I could sell a job at the office. No one could supervise a field better than I could supervise a field. And I became my own worst enemy in the business. Finally, I had terrible chest pains and went to a doctor, family doctor, GP, general practitioner. Gave me a physical and sat me down and he said, "Walt," he said, "from the neck down, you're perfect." He said, "Your problem is from the neck up. I want you to see a psychiatrist."

I said, "I don't have time to see a psychiatrist. That's ridiculous."

And he said, "You can't afford not to. That's my professional opinion. If your decision is not to take it, then I don't want to see you any more. I've done all I can for you."

So, through pressures from my wife and one of my secretaries, I said, "Okay." I went down to Los Angeles. Huge office. Gorgeous office. Walked in, sat down. The psychiatrist. And I said, "Okay, what do we do? I travelled all the way down here, and I've got all these things going on here. What do we do?"

He said, "Nothing."

I said, "I don't have time to do nothing."

He said, "Then you can leave." He said, "What do you want to do?"

I said, "I want to get the hell out of here."

He said, "Nothing's stopping you."

I said, "For a hundred dollars an hour this is what I get?"

He said, "Maybe."

Anyway, I went for three months. He put me on Miltown. For me, it's perfect and under prescription, and the doctor there was perfect. Fantastic psychiatrist. Everything was great. Nothing bothered me. Everybody at the office was terribly relieved. They said, "You know, you've been the biggest--" [chuckles] But then that began to build up again. And that's when I just got out!

Swent: And that's when Clear Lake was--

Wilcox: I saw the signs, and I didn't want to be there again. But, like I said, forty years old. Who's going to hire me? Blah, blah, blah, you know. But finally I did it.

Swent: So that's when you came up here.

Wilcox: Yes.

Swent: Okay. And when was it that you came up here?

Wilcox: Let's see, 1976--1976. September, I think. September.

Swent: And you became a county supervisor very soon after that.

Wilcox: Well, it took us about six months to sell the house down below, get up here, get settled, and I began [snapping his fingers four times]. Had to get this thing on the road and excited about it.

Swent: Did you get into things other than the resort?

Wilcox: No. Bought the place, began to get the brochures made, joined the Chamber--

Swent: Chamber of Commerce?

Wilcox: Right. Made the shows, the Cow Palace. Make the shows, you know, promoting resort tourism up here. Went to all my competitors and passed out the card and said, "I won't undercut

you. I'll charge as much or more than you per night; we've got to work together." And [chuckles] God stepped in, and I was, like you say [snapping his fingers again], I was on that roll.

Swent: Did you join other things?

Wilcox: No.

Swent: Was there Rotary or Kiwanis?

Wilcox: No, this was strictly I want to build this business up. Our son was living up here with us, our younger son. And I became Simon Legree on, "Do this. We've gotta get this done. We've gotta get that done." And God stepped in.

I bought a boat with an outboard on it, and Todd, our son, came on. Was going to take this boat out. We got in the boat, and I'm trying to start this outboard, and it won't start, and I'm standing up, pulling the rope, and I'm just furious at this outboard, and things weren't working the way I wanted them to work, and all of a sudden I pulled that rope and I threw my back out. I mean, big time. My back--I dropped in the boat. The pain was excruciating. My son rowed it back in. They carry-lifted me, screaming, up to the house. I laid down on the floor, and June began to laugh. And then Todd began to laugh. Which made me absolutely furious. And June says, "I couldn't slow you down, your son couldn't slow you down," and she said, "God slowed you down." Well, you know, there might be truth to that because the reason I couldn't start the outboard was I hadn't turned the gas valve on. [laughter]

So, no, I hadn't become politically involved at all. Didn't care to, really. But all of a sudden I was told that the state owned the land I had just bought. I said, "How can that be? I just bought this land. I have a deed, and my deed shows where my property lines are. My property line goes way out in the lake." No, the state owns to high-water mark. New law. That's when I saw my supervisor.

Running for County Supervisor, 1978

Swent: And so you had just gotten here, and your back had gone out, and you were forced to take a little breathing time. And then you had to go to see the supervisor because you found that the state had rights up to the high-water line.

Wilcox: Which my deed showed that I owned much further out into the lake and the property. His response was that it was a state law; we couldn't do anything about it. My response was, "You represent us. Did the board of supervisors complain about it to the state, or at least write them a letter?"

His response was, "Mr. Wilcox, the last time I wrote a letter to the state Assembly was seven years ago, and I'm still waiting for an answer." And then he turned to me and he said, "How long have you lived here, Mr. Wilcox?"

And I said, "Oh, probably about six months--a year, maybe."

He said, "Maybe you've picked the wrong place to live."

Swent: Oh, dear. So he suggested that you move away.

Wilcox: That's about the size of it. So I came home and told June what happened, and she said, "Well, look, either do something to change it or accept it. But," she said, "don't come home and rag it on me, okay?"

So I took her advice, and I went and I shaved my beard, which I had had for fifteen years, and went down to the courthouse and filed--just a coincidental thing--filed to run for supervisor of Lake County, knowing absolutely no one except Addie Koitch next door. That was the only people we knew with any intimacy and closeness at this point. I ran for the office. I won. The first time. The second time--

Swent: When was that?

Wilcox: Oh, that was in '78. I came here in about September of '76. Probably the latter part of '77--when I actually started filing was in '78, and then I was seated in January '79. I won in November of '78 and was seated in January of '79.

Swent: And so the Manhattan or what's now the McLaughlin Mine was just discovered at about that time.

Wilcox: Unbeknownst to any of us.

Swent: I'm not sure when the very first applications were made for permits.

Wilcox: Bill Wilder could tell you when he was first contacted by them and fill that in.

Lake County's Outdated General Plan

- Swent: So when you first came on the board of supervisors, none of that had come into the picture, yet?
- Wilcox: No, no. When I first came on the board of supervisors--that was January '79--number one, the supervisors didn't even have a desk or a phone or an office at all there. None whatsoever. The general plan was way outdated, and the state had threatened to file suit against the County of Lake.
- Swent: On what basis?
- Wilcox: On the basis that the general plan was not kept up to date, which was state law that every county and city has to have a general plan. They took Mendocino County to court just prior to that, and Mendocino lost. And Mendocino could not issue a building permit until the general plan was brought up to date, which took a number of years. And now they were threatening Lake County. That was the first thing.
- Swent: You might mention all of these substandard lots that you told me about.
- Wilcox: Yes, yes.
- Swent: 800, you said?
- Wilcox: 8,000! Between Nice and Clearlake Oaks, in those hills up there. 8,000. From the early thirties, late twenties. It was all subdivided back then. So we had that to contend with. We only had three people in the planning department. Geothermal was coming in. They walked in for permits. There were only three people in that department, none of them trained as planners. And secondly, there wasn't even an application for geothermal permits. We didn't even have a piece of paper made out to fill out for a permit. And geothermal, they wanted to get going up there.
- Swent: This was the geysers.
- Wilcox: Geysers, right. And building power plants. They were going to sue us! So gold mine? Never heard of it!

Restructuring County Government to Give Supervisors Control

- Swent: So when you stepped in, then, the major issue was bringing this general plan up to date?
- Wilcox: The major issue was that the board of supervisors--the county was run by the CAO, not by the board of supervisors.
- Swent: By the what?
- Wilcox: The CAO.
- Swent: What's that?
- Wilcox: County Administrative Officer. His name was Mr. Walt Munchheimer. Walter Munchheimer was the CAO.
- Swent: He was the county administrator. Hired by the supervisors?
- Wilcox: Hired by the supervisors. He controlled everything. Everything went through his office. Everything--whether it was days off or budget, everything. The supervisors met every Tuesday. That's it. They'd walk in, he'd have the agenda made for them, people or department heads would come in, and they'd listen to them, and then they'd listen to Mr. Munchheimer, and they'd agree with Mr. Munchheimer, because they didn't know both sides of the story.
- Swent: Were the supervisors elected at large or from districts?
- Wilcox: No, by district, by districts. The county was split into five districts, and the supervisors from each district.
- Swent: So you were from this district, then?
- Wilcox: Right. When I went into office, we readjusted what we called--we rebuilt county government.
- Swent: Were you paid?
- Wilcox: Yes. \$900 a month.
- Swent: Plus expenses?
- Wilcox: The expenses were if you traveled outside the county. With permission of the rest of your board, you were paid expenses. If you were traveling inside the county, you were paid, I think, thirty cents a mile inside the county, for using your own car.

We didn't have a county car; we didn't have any aides or anything.

Swent: Any staff?

Wilcox: No staff. No staff whatsoever. The staff belonged to the CAO. I got with some of the other elected officials--the assessor, tax collector, auditor--and I said, "We all are elected. They are our bosses out there, so Lake County government has to be restructured. I can't think of a better group to do it than--." And, of course, with the CAO. The CAO didn't last long at all. The first thing that happened when the board decided to do something in the second week the CAO said, "Supervisor Wilcox, if you carry through on doing this, it will be truly, truly unprecedented."

Swent: What was it?

Wilcox: And I said, "Mr. Muncheimer, I think you'd better get used to a lot of unprecedented things being done around here." I don't even remember what it was. But later on, when I met with Walt, I told him, I said, "Walter, you're the most knowledgeable, most intelligent man I've met in Lake County, but regardless of your background, your experience, your knowledge, your expertise, if you have lost the ear of the people out there, all of that isn't worth a hoot."

And he clicked his heels together and he said, "Supervisor Wilcox, I do not have constituents. You do."

I said, "Mr. Muncheimer, as long as I have constituents, you have constituents." We asked for his resignation--I'm sorry, he submitted his resignation. We did this in closed session, of course. The guy's a professional, okay? You give them an opportunity to resign.

And we restructured county government. We took everything out of the CAO's office to begin with. We set up a general services department that took care of personnel, insurance, purchasing. The CAO had been doing all this. I'm not blaming him. I'm blaming the board. They allowed, they subordinated their own responsibilities and left a void, and he filled it, either by choice--and I think by choice. "Don't worry about it, fellows. I'll take care of it" type thing. Or it laid there and nobody was doing it, so he did it. We restructured the whole thing. So that was the first two years; then, the rest of the board changed with the next election.

So it's geothermal, general plan, restructuring county government were the big three during those two years.

Swent: Were the other people on the board of supervisors old-timers? Or were there also other newcomers?

Wilcox: There was one old-timer left: Ray Mosten. Agriculture for generations here family. He was the only one left. All the rest of us were new. There were three of us new; four would be the old one; where was the fifth one? Who was the fifth one? I don't remember.

The Geothermal Boom Helps an Area with High Unemployment

Swent: What was the situation economically in the county at that time?

Wilcox: We had a population of about 25,000. The economy was strictly agriculture, tourism. Which basically it primarily still is.

Swent: It was one of the poorest counties in the state, wasn't it?

Wilcox: Still is. It was a retired community, poor community. Seasonal work only. Unemployment would jump from 7 to 16 percent, then and still. Many have to leave the county to get work, yet the county becomes embedded with a lot of other out-of-work people coming from San Francisco. Your social services department in your cities tell their clients, "You know, you get \$1,200 to \$1,400 a month. That money will go a lot further up north in the rural counties of Humboldt, Mendocino, and Lake. If you go up there, you get a lot more for your money. Rent is lower," and so forth. And they would come up in droves. Well, financially, the state doesn't pay for all the social services. It doesn't pay for all of welfare; it doesn't pay for all of--the county general fund also does. It bankrupts small rural area counties.

And a lot of good people come up from the city because they are poor, and they're afraid to stay in the homeless homes down there because of what happens in them. They're scared to death to stay on the streets, but they can come up and they can camp up in the woods here for long periods of time without being "caught" so to speak. They can buy--you talk about slumlords in the city. We've got some dandy slumlords here. I've seen houses, there wasn't any toilet. There was a hole in the floor, because the toilet broke and the landlord refused to replace it, so they just took the toilet out and left the hole in the floor. But they didn't have any place else to live.

The boom came. First was geothermal. Brought a lot of jobs to Lake County. Secondly, the gold mine brought a lot more jobs. Both trained people from Lake County, especially the gold mine. We had a written agreement with them.

Swent: Now, that came a little bit later. You made that agreement with them. Let's have you tell what was your first recollection. When did you first hear about the gold mine coming in? By then you'd been through the Geysers.

Wilcox: Well, we were deeply in the middle of both the Geysers and the general plan. That takes years to straighten out, forming a thirty-six-person committee from all over the county, advisory committee, to review the general plan and so forth and so on. Geothermal was tremendous pressures on us to keep from being taken over by them, literally.

Swent: Was this PG&E [Pacific Gas and Electric], primarily?

Wilcox: No. It was Union Oil, it was Unocal, it was all kinds of large corporations. And people here needed jobs. I had a meeting in Lucerne. A hundred people showed up. With me and Unocal. And Unocal telling them, "We're going to bring millions of dollars and hundreds if not thousands of jobs here, but the county is putting so many blocks in our way that we're just going to have to walk. We just can't put up with this."

And I'd get up, and I'd say, "That steam has been there for millions of years. It isn't going to rust. I'm all for bending over backwards for the Geysers and for the corporations up there. We want jobs here and we want industry here, but not at any cost! And I'm talking about the cost of what comes out of those steam fields, the sulfur, the chemicals; and I'm talking about jobs at decent wages; and I'm talking about the environment, et cetera, et cetera. But not at any cost." And I said, "I've been in too many factory towns."

And when it was all through, the moderator said, "How many are in favor of Unocal?" Ninety-seven people there. Ninety-three stood up.

There was one man there with his wife and three children. He said, "Mr. Wilcox," he said, "I've lived in Lake County now for five years." He said, "I've never been on welfare. I've washed dishes, I've cut wood and stacked wood, I've raked yards, I've done everything. Never have I gone on welfare. This man here is offering me a job. Don't you stand in his way."

And my response was, "I absolutely understand what you're saying. I have no problem with your position." And I just left it at that.

They offered us \$82,000 for their part of improving Bottle Rock Road for the geothermals. We said, "That's an insult." This was the state power plant. The state was building this power plant on the basis of shipping water to Southern California. That was why it was built. That power plant, by the way, is closed now. It's useless.

Swent: The power plant was to be used to pump--

Wilcox: For power to pump water to Southern California. Remember, all power goes into a grid. It doesn't have to come from here. It just has to make up the difference to use someplace else. That's another story, but--

Getting the Bottle Rock Road Upgraded at State Expense

Wilcox: I went to a meeting in Humboldt where the state director was there. He's a judge now. He was appointed by Jerry Brown to a judgeship. And he was talking in Humboldt about being a good neighbor. I got up and I said, "You know, I have problems with that. You stand before all of us here, with two newspapers here, saying you want to be a good neighbor when you come into areas, and then you turn and all you offer is \$82,000 to upgrade a road, Bottle Rock Road, to your power plant." And I said that was an insult. "You know it's going to cost more than that."

He was truly shocked. He really was. He turned out to be a hell of a nice guy. And he said, "I'm sorry. I don't know anything about this."

I said, "You should. It's your department. And you can't tell me you didn't know. They came to the County of Lake and said you offered \$82,000."

He said, "As the Lord is my witness, Mr. Wilcox, I did not know that."

Swent: This is a person from the state?

Wilcox: Right. I can't remember the office now. He said, "I will guarantee you when I get back," he said, "I will assign a man to Lake County that will have an absolute open door to my office,

absolute open door to my office. He will be there permanently until we finish our business together."

I said, "The only reason I believe you might do that is because there are newspapers here that are going to print that." He did exactly what he said he was going to do. It cost \$2.2 million to upgrade that road! We got together, myself and Dot Wilcox, another supervisor with the committee, to meet with the state, and I said, "I don't want tax money. I want lower cost of power for everybody. Tax money has a way of going into government and disappearing down a rat hole someplace. I want lower cost of power."

And they said, "Well, we can't do that." Oh, first they said, "How do you propose we do that, Mr. Wilcox?"

I said, "I don't know, and you know I don't know. And I want you to know that I know that I don't know, too. That's your problem how you do it." That was the beginning.

Bottle Rock Road. I said, "We like it exactly like it is. We don't have any problem with Bottle Rock Road. Now, if you have a problem with Bottle Rock Road, then you fix it. We don't have a problem. Very few of us ever use Bottle Rock Road." Then they wanted to trade Highway 175. If you've ever been over 175 from here to Hopland, it's sixteen turns every quarter of a mile. They wanted--the state said, "We'll take over Bottle Rock." The state will take over Bottle Rock Road and, "You can have Hopland Grade, and we'll trade you."

And I said, "That's insult number two. Why should we be even talking here?" Anyway, the outcome was they paid 100 percent, or they got with the other geothermal people, and all of them paid 100 percent of upgrading of Bottle Rock Road, the \$2.2 million. That's the \$82,000 they offered us to upgrade. We didn't take over Hopland Grade.

The Gold Mine Project Came in Very Quietly

Wilcox: Back to the mine, the first man I met was Mr. [Raymond] Krauss. The first knowledge we had about the proposal of the mine came out of Sonoma, really. They began first, I believe, in Sonoma, in talking off the record, if you will, and feeling out. They were very, very, very quiet about what they were doing. They really--

- Swent: Did Ray [Krauss] come to see you?
- Wilcox: No, no. Ray came before the board.
- Swent: And this was the first you had heard of it.
- Wilcox: Yes. Well, he made application in the planning department. Let me put it that way. And then, of course, it ultimately came before the board.
- Swent: But that's interesting, that your first knowledge of it was through the official process. That's a surprise. I would have thought there would have been rumors before.
- Wilcox: No, no. There were rumors. We heard there's a gold mine and they were nosing around Lake County, Napa, and Yolo, but it was up in the hills there, and some of the old ones said some place up the hill, and then it came out Wilder's area.
- Swent: Did you know Bill?
- Wilcox: Not at all. I didn't know hardly anybody. I had no idea where the bodies were buried or who was who or what. That was sort of refreshing because then I had no built-in, preconceived--
- Swent: Had you heard about the mercury mining?
- Wilcox: Oh, yes. Oh, yes. Both June and I, we like history.
- Swent: Of course, Sulphur Bank [Mine] is just down the road from you.
- Wilcox: Right. And we'd gone to a museum those three days we were here and got some of the history of the area and what have you. And we passed one coming up Highway 20. We passed a mine. I don't know whether you saw it when you came up.
- Swent: Sulphur Bank?
- Wilcox: No, it wasn't Sulphur Bank.
- Swent: No?
- Wilcox: Sulphur Bank is at Elam Indian colony. Sulphur Bank is off from Highway 20.
- Swent: Oh. Well, the one right by the road, then.
- Wilcox: Right by the roadside as you come up Highway 20, on the right-hand side, you see all that tailings going down into that creek.

Swent: I thought that might have been the Sulphur Bank.

Wilcox: No, that's not the Sulphur Bank. It's this side of Highway 53. Near the Oaks. Just as you go out, after you pass the Oaks.

Swent: Oh, yes. I saw it. You can't miss it.

Wilcox: Oh, no. Now, wait a minute. You're talking about the red soil?

Swent: But that's a quarry.

Wilcox: That's a quarry. Sulphur Bank Mine is opposite the quarry, going the other way.

Swent: Right.

Wilcox: Over by the Elam Indian colony area. That's quite a history, too, that Sulphur Bank Mine. So, really, the gold mine came softly. It wasn't a FOOF! When it did begin to set in, when they kept coming a little closer to us, so many things in a small community like this are rumor, and when it began to look like it was--people had been here before and looked around and so forth. No big deal. When it began to look like a reality, then there was a slow process of the excitement coming in. But there wasn't any big hoopla because people were just, you know--they did a beautiful job. They didn't come in like gangbusters, like geothermal. They came in. You didn't even know they were in town for six months.

But Krauss became the focal, the head of the spear. Krauss was the one that built the confidence in us. And through him others came. Behind him came others that gave us a sense of we're dealing with honest people here.

Swent: Do you happen to remember the names of any of the other people?

Wilcox: I'm sorry, I don't. I was so busy then, and after the first three years I began having health problems. Ultimately, I had a pacemaker installed. I passed out in a restaurant. That was the end of my other running.

Swent: You were on the board for four terms?

Wilcox: Yes. Sixteen years. Four terms.

Swent: From January of 1979 to '95?

Wilcox: Just left January of this year.

Swent: '95.

Wilcox: Yes, January of '95 was my last Tuesday meeting.

Swent: So you were through the whole thing. How did it impact this particular district?

Wilcox: In a very positive way, because many people in District 3 got jobs there.

Swent: They commuted from here?

Wilcox: Yes. Oh, you betcha.

Swent: That's quite a way.

Wilcox: Oh, many people were commuting already to Santa Rosa to work in construction or other work here. They set up training stations--schools literally to train people.

Swent: Did they go through you for permits on that sort of thing?

Wilcox: Yes. You had to have lived here prior to July of 1983 to get a job and be trained up here.

Swent: Who put that stricture in?

Wilcox: We did. Because we were afraid all of a sudden a whole bunch of people would move into Lake County. Of course, the unions then began to make noise.

"The Unions Began to Make Noise"

Swent: Yes. How did that go?

Wilcox: They began to come to the county, saying, "Hey, they aren't fulfilling their agreement on training."

We said, "We're not going to get involved in any union problems. That's between you and them. We don't want to hear about it. We don't want you to come before the board any more. That's it."

Swent: Which unions were these?

Wilcox: Oh, Labor is one.

Swent: Operating Engineers?

Wilcox: Operating Engineers. They were the heavy ones. Operating Engineers were the big push.

Swent: And you had worked with them down south, hadn't you?

Wilcox: Yes. A wonderful experience. But as a supervisor I'm not going to get involved in a union dispute, regardless of what my personal feelings are.

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Swent: At geothermal was there a union issue?

Wilcox: No. Not to the extent there was in the gold mine.

Swent: I'm asking because, from what I gather in some of the newspaper articles, the local people had felt that the Geysers jobs had gone to outsiders who came in, that the unions brought in? Is that correct?

Wilcox: Well, the Geysers. We didn't have that agreement with the Geysers. We learned there.

Lessons Learned from the Geysers Experience

Swent: Okay. This is what I wanted to bring out, that I think there was a relevance to what happened there.

Wilcox: Right. The Geysers taught us an awful lot. We were more focused on their permits and their environmental impact: air, water, noise, land. Interesting, isn't it?

Swent: Yes.

Wilcox: What's equally the same thing--air, water, noise, land. And we didn't understand totally what that meant. The building of these plants and so forth were from our viewpoint an expertise that you really had to know what you were doing. We sort of missed the boat, I think, on the Geysers, as far as hiring local. A lot of people in Lake County got jobs in the Geysers when they were constructing the plants and so forth, but they were truckers, individuals, rather than companies, because companies didn't want to join unions.

Geysers were awfully hard to deal with. I enjoyed it; don't misunderstand me. I enjoy a good battle, game, as long as it's kept at a decent level. It was very enjoyable in that sense with the Geysers. But it was a total distrust, and to this day I still say, with a heck of a lot of justification in that distrust, that it was earned by them, not received by us.

I had an attorney almost arrested--one of PG&E's attorneys arrested--because after we closed the public hearing, three times he interrupted.

PG&E, themselves, fine. You had two entities up there. You have the people who owned the wells who were selling to the power plants. So you had Unocal, who were drilling wells. Unocal was always very tough to deal with, although I liked very much their representative. He and I right away met. I hadn't even been on the board. I was at a board meeting. I'm sorry. I was at a committee meeting of the air pollution. I had been on the air pollution [committee] of the Ventura County board and they were talking about ammonia and other things coming out of the ground at the geysers with our air pollution control officer. I was sitting way in the back. I was the only person there. And it was Unocal and some of the other Geysers people.

They took a ten-minute break, came back, and when I sat down in my own seat, way in the back, two guys sat in front of me, the seats in front of me, and they began--because there was an empty seat between them, so they were turning and talking to each other, and I was sort of in the middle, but in the next row over. And the fellow began to bring me into the conversation, and then he quickly turned after a few words back and forth. "I'm so-and-so." I said, "I'm Walt Wilcox." He said, "What are you doing here?" I said, "I'm running for office, and I'm just seeing what's--." "Great," he said, "Lived here long?" I said, "No." He said, "Where are you from?" I said, "Thousand Oaks in Southern California." "Oh, ____."

Seven thirty that night, I was at another meeting. Same people, at the Konocti Harbor Inn. Afterwards, we went to the bar. They knew, between that morning and that evening, they knew where I came from, what I did in Thousand Oaks, they knew I'd been on the planning commission, they knew everything about me in that short period of time. And we sat in that bar. And they also knew I'd been on the air pollution committee in Ventura County. And I said, "Look--"

Swent: These were Unocal people?

Wilcox: Unocal people. I said, "Look." I said, "When I get on the board, and I fully expect that I will," which, in all honesty, I didn't expect I would at all, I said, "Let's get this straight. Your job is to get the most out of Lake County at the least cost to your corporation and your stockholders. My job will be to get the most out of you at the least cost to my county, Lake."

And he said, "You're right."

I said, "The only difference between corporations--and I find nothing wrong with this, except for one thing--the only difference between corporations is their morals, their sense of responsibility to the community which they're operating in. Some of them have no sense at all: 'Let's get everything you can. Rape it and get out. And the stockholders are happy.' Others say--. That's the only difference."

And he said, "You're right there, too."

I said, "Which are you?"

And he said, "Well, Mr. Wilcox, I'd like to think that we're the ones with morals."

I said, "We'll find out."

I enjoy that. The gold mine I sensed there was no pressure put on. They may have ran to our borders, frantic to get this thing done, but once they stepped over the border line, they walked in. They gained so much more that way, so much more. They gained things so much quicker, to the point that when they did say, really, "Time is of the essence with us," we truly believed it, that they weren't just getting pushy. We truly recognized time was, you know--we became very objective because of their way of approaching us and their way of constantly proving that they held to their word.

Swent: Their first permit that they requested from you, I think, was to improve the road.

Wilcox: That was one of the major--

Swent: The Morgan Valley Road.

Wilcox: The Morgan Valley Road, from Mill Street, which was just the other side of the town, to, of course, the mine. And they needed a tremendous amount of acquiring of properties, easements, and so forth, all that whole stretch.

Swent: Was there any conflict on the board because of districts, that the impact and so much attention was given to that one district?

Wilcox: A little bit, but not too much--except for jobs, in that sense. As far as funding is concerned, all of the districts--generally, all the supervisors saw that this would be a benefit to all of us. Politically, of course, it would have been very touchy to put blocks in their way. Of course, they were astute enough to know this, but they didn't use that.

Swent: "They" being Homestake.

Wilcox: Homestake. They didn't use that as the geothermal used it; i.e., the meeting in Lucerne. They were hitting us over the head politically to make things easier for them. Homestake never did that. They never did that. And Homestake is a big outfit. They've built all over the world. I'm sure that we were penny ante here, and they could have used their--

Swent: They're not anywhere near as big as Unocal, are they?

Wilcox: Homestake? No, they're not. But Homestake didn't try to politicize this. But every supervisor knew that this meant jobs. And there was no reason. We had a controversy about Morgan Valley Road with them, to a small extent, and the center of downtown, that the road downtown, Main Street.

Homestake Pays \$160,000 to Rebuild Main Street in Lower Lake

Swent: In Lower Lake.

Wilcox: In Lower Lake. The sewers, the water drainage, flood controls, all the utilities--the infrastructure was very, very old underneath all those streets and buildings. Homestake said, "Well, the only impact we're going to have is on the center of those streets. You have angle parking there, and we're not going to be on the side. So there's only about a 26-foot area there that we'd even be traveling on, and that part we would feel at least a portion of responsibility for." So we had our public works director get an estimate of cost. It was \$160,000. So we said it would be about \$160,000. They said, "Fine. No problem."

Also, it was useless to tear up a road and make a nice road with all this collapsing underneath it, the whole utilities, so that would have to be done. And then it just sort of blossomed. Well, as the years went by, this \$160,000 hung there. It was

there. And as supervisors changed every two years (we change supervisors here like we change our underwear), the--

Swent: All five change every two years?

Wilcox: I'm the longest serving supervisor in excess of thirty years. Anyway, that we can go back on. Either they quit, they died, or they were recalled.

Swent: I mean, it's only a two-year term?

Wilcox: No, it's a four-year term, supposedly.

Swent: But they're staggered, though, aren't they?

Wilcox: Yes. The districts.

Swent: All five don't come up for re-election.

Wilcox: No. Three, then two. Three, then two.

Swent: But you had some new ones in two years.

Wilcox: Right. And oftentimes there, one time, much oftener than that, because of recalls or deaths. Or just, "I've had it." Or one case the assessor quit, so the supervisor from this district was appointed by his fellow supervisors as the assessor. But anyway, that's another story.

Swent: So you were the one with the continuity.

Wilcox: Yes. As this went on, the changing of the guard in that district, Voris Brumfield became supervisor. A young lady, smart as a whip, black, won election. And she wanted downtown Lower Lake upgraded with sidewalks, paving, the whole shmeer. We talked with the Homestake, and they said, "We'll give you the \$160,000 and you can go out for contract or the county can redo their work, and we'll just give you the money." And our public works director thought that was a very good, amiable agreement. If we said it was going to cost \$160,000, they'll give us \$160,000; then we can get the utilities and everything to be changed. We can do more of the work ourselves and put in sidewalks and so forth and so on. So that was the agreement there.

The agreement from Mill Street on up to the mine, Mill Street being the end of downtown, to the mine, was very stringent. It was their baby. And, boy, they've paid for it over the years because of floods and cave-offs. It was a very

agreeable and to this day accepted by both sides agreeing. It wasn't a knock-down, drag-out, and the threats of pulling out, or wearing you down by meeting after meeting after meeting.

PG&E is very good about that. That's when I almost had this attorney arrested. They have a habit of coming in and not giving you all of the information until they get to the meeting, rather than giving it beforehand for the agenda. And they would come in with a stack that high [demonstrating] of--

Swent: Three inches high.

Wilcox: Right. And in this particular meeting, they were the only ones out of all the geothermal that did that. For two years, the air pollution department had worked with all of them up there to come to this. Once this was put together here, it was given to all of them for four months to study and to send back additions, corrections, deletions, recommendations. Everyone did that in a timely manner except PG&E. They walked into the meeting with their additions and corrections, and said right away, "We're sorry about this, and we know that decisions can't be made today because you won't have time to have read this."

I was chairman. I said, "You're mistaken. Decisions are going to be made today. You had ample time to get that in here. And I don't care if we sit here all night, but we're not leaving this meeting until this board has come to a decision. Do I have the support of the board?" And the board said, "Yes."

The attorney was quite upset about that. I think it was one o'clock, one-thirty the next morning when we made our decision. But during that period of time, the third time he got up to interrupt, I told him, I said, "One more word. Just one more word. Please. Tell me. Speak one more word." And PG&E grabbed him, asked for a recess, and took him outside. I have a button under my desk connected to the sheriff's department, and I was going to have him arrested. And I had threatened to arrest him before, have him arrested.

Swent: But Homestake did it differently?

Wilcox: Yes. Homestake did it totally differently.

Homestake's Low-Key Community Meetings

Swent: Did they have community meetings up here in this area?

Wilcox: They had community meetings and they were low key. Everything was very low key. In my sixty-seven years and with my background and history, of every corporation I have dealt with, Homestake stands out, heads and shoulders above--if there's anyone--another corporation even with them is American Line Steamship Company, that built Westlake in Thousand Oaks and Westlake. They and Homestake were about on the same level of, "What I tell you verbally you don't even need in writing. We'll give it to you, but you don't need it. A handshake is our word. Our word is our bond." It was the most wonderful experience for me and for the county.

Swent: The training programs that you mentioned; I think they were set up with the community college.

Wilcox: Yes.

Swent: Did the county supervisors get involved? As a supervisor, was that something that you got into?

Wilcox: No. We'd go up there and see what they were doing. We'd gone to our constituents up there. We talked to our constituents down here. There was a group in the county of workers that banded together that would come to us and complain constantly about Homestake and what they were doing up there, and they weren't hiring the people they said they were going to hire. Homestake would come with the time cards. They had the names, addresses, phone numbers of every employee, where they lived, how long they'd lived there. And they kept explicit records which were open to us at any time. We had a committee that would meet.

But this dissident group in fact were put in here by the unions, because the unions knew we wouldn't talk to them. But these were constituents. We wouldn't talk to them as a union, but these were constituents. They tried very hard to--and we were required--they were constituents, they were a citizen who made a complaint. We had the responsibility to check on that complaint. But nothing ever came of it because they were--some of them that were brought into training or brought into jobs and then were fired were complainers, and their complaint was because they had to work. [chuckles]

But I can remember and, of course, especially with you and your husband's background, you've seen the huge equipment that's used, these huge trucks that carry I don't know how many tons at a time, twenty tons or something. [chuckles] Going to the training class and see the little tiny young lady from Upper Lake driving one of these huge, you know--and it was a joy to experience and be a part of. It really was.

Hiring Local People

Swent: I gather from the newspaper clippings that I saw that there was disagreement about whether Homestake complied in hiring its quota of local people.

Wilcox: They were never found wanting. We set up this committee which would meet--I don't remember. David Hughes was one of the committee members. David Hughes was on the planning commission at the time. I can't remember whether it met once a month or quarterly or on call as complaints came in. And they sat in judgment. Was the contract being upheld, and is there any justification to this?

Swent: There was actual picketing at one time.

Wilcox: Yes.

Swent: During the construction.

Wilcox: We don't get involved in unions.

Swent: You were able to stay out of it.

Wilcox: Right. We were able to stay out of it. That's where the distance came in as individuals, rather than as union. In fact, they were union, and they were sent. So in my lifetime I'm an absolutely firm believer in union, philosophically. Unfortunately, the unions at times became more to fear than the employer. But I believe in unions. There should be unions. Otherwise it plays one company against the other, and each one has to keep lowering the price down. The first place you lower it is in wages: "I have to, because my competitor is" type of thing, and vice versa. And I think that's what it comes down to: salaries, wages.

Clear Lake Water, a Perennial Controversy with Yolo County

Swent: We haven't mentioned the water situation, but there was a bad time between Clear Lake and the Yolo County Irrigation District that particularly came to a head in the floods of '83. Would you like to comment on that?

Wilcox: I wasn't chairman in '83. I was chairman in '82.

Swent: You became chairman right away, then, didn't you?

Wilcox: Yes.

Swent: Clear Lake empties into Cache Creek, which ends up in Yolo County. That's the geography of it.

Wilcox: But what did that have to do with Homestake?

Swent: Well, all the water that they use.

Wilcox: Oh, okay.

Swent: I'm not sure. I guess, because I've read that one of the permits that they needed, they had to do some alteration to the dam.

Wilcox: Okay. We've always had controversy with Yolo Water District in numerous areas--in how they operate the dam, when they built Spring Valley Lake and put a dam on it, the agreement there that they weren't fulfilling rebuilding bridges of roads that were inundated with the filling of the lake there, their power plants that they added, developed. There's always been a controversy and historically a tremendous resentment, if you will, that they stole our water. Well, they didn't steal our water. Water rights were open, and they took it. They applied for it. Nobody up here felt like they should have to, I guess. They had enough water here at the time.

The only controversy I can remember--the valley down there is large holdings, large farms, very educated people--very educated in biology and everything, just highly educated people down there. They want nothing to touch "their" water, Capay Valley. They fight everything tooth and nail. They have a very powerful congressman, Congressman Fazio, and they were fighting Homestake tooth and nail. It wasn't Cache Creek. There was a stream up there that Homestake was going to be operating near.

Swent: Davis Creek, I think it was.

Wilcox: They gave Homestake all kinds of fits for a long, long, long time. Ultimately, I went up with permission of the board, as a volunteer thing. We weren't asked to, but as this thing went on, we asked Homestake just what in the world is the problem and they told us. We offered to go up to one of their top meetings with them before the board, the water district board, I guess.

Swent: In Yolo County.

Wilcox: Right. And I went to that meeting.

Swent: So that would have been the Solano Irrigation District, maybe?

Wilcox: That's possible.

Swent: I think so.

Wilcox: And the idea was that Homestake had offered, bent over backwards in offering protection to that. And at this particular meeting, Homestake said, "Look, we've had it looked at. We will fund, we will give the money to the people in Capay Valley. They can hire their lab, and we'll give them the freedom to come up and test up here, whatever is necessary, within reason, of course. And if they find any variance from the conditions, we'll shut down immediately. And that's on the record. Obviously, they don't trust that we would hire a lab, a lab that would be honest."

Capay Valley's response was, "Well, this--." Now, this is after I think a number of years of controversy. They said, "Well, this is a new offer, and we're going to have to think about this."

And I spoke at that meeting. I don't remember exactly what I said, but I think, if I remember correctly, it was sort of in the vein, "It's pretty obvious, isn't it, that these people don't want, under any circumstances--any circumstances--there is nothing that would satisfy them. Period. This is unfair and ridiculous. And we're here from Lake County to say we support Homestake in their position." And then reiterated our relationship and how strict we'd been, et cetera, et cetera. How cooperative they'd been on everything. That type of thing. That's about all I basically remember about that controversy.

Swent: I know that they held up the environmental impact approval for much longer than Lake County did.

Wilcox: *Ad nausea.*

Swent: Lake County and Napa County approved it fairly early on.

Wilcox: Capay Valley's always been tough to deal with.

Swent: I think they came up to meetings here, too, didn't they?

Wilcox: Probably. I don't--

Swent: I think they sent representatives up here, from what I read in the papers.

Wilcox: I don't remember.

Swent: So you also went over there and testified. Did it have any effect?

Wilcox: Well--

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Swent: This is the supervisors in Yolo County.

Wilcox: Well, it wasn't the supervisors. It was the water board or something up there.

Swent: Oh, yes.

Wilcox: The Yolo Water District, I guess.

Swent: I think Solano Irrigation District was the technical group.

Wilcox: That could be. My own opinion was that they had had it up to here, too. I mean, my gosh, what more could anybody offer? And really what is your real agenda that you don't want this? And obviously it's not environmental any more because what else could be done?

Swent: Well, it's kind of a classic case of jobs versus development, isn't it?

Wilcox: Yes and no, because nobody gave away the farm. Nobody sacrificed good development for jobs. I don't think Napa did. I don't think Yolo did. And certainly I don't think Lake County did. As I understand it (I haven't checked on this for years, and it's something that should be checked on, though), each year Homestake has a bank letter guaranteeing funding to clean up the mess, so to speak, when they're through. And each year that letter from the bank is supposed to be renewed and adjusted as far as funding is concerned, or the funding available, depending on changes, the situation. It could go down; it could go up. I intend to check. In fact, I intended to check on that before you came, seeing as to the fact that Lake County has been following through on that and Homestake. Sometimes things like that sort of get lost in the--before you leave, I could call and find out.

Swent: That would be interesting, yes.

Are you in touch at all with what's beginning to happen now? Because, of course, now they're talking about the shut-down. Is Lake County doing anything in preparation for that?

Wilcox: First, to answer your question, no, I haven't been in touch with that. The only thing I've heard is in my trying to prepare a little bit for your coming, I was talking, for instance, to the assessor's office. I understood that they had a whole scrapbook. They did paper clippings of this, and so I went over and talked with Dan. And no, they did, but they were thrown away.

Swent: Oh!

Wilcox: History is thrown away. But while I was there, someone in the assessor's office--it wasn't Dan; it was one of his staff members--brought up the subject of a solid waste dump for the pit. And it would be ideal. Solve a lot of counties, all of our counties' problems as far as solid waste is concerned. And that is a justifiable suggestion, as far as what to do with the hole. That would take a whole new script, perhaps.

Swent: That was not part of the original plan?

Wilcox: Well, you see, we aren't involved in the hole. The hole is in Napa and in Yolo, so we're not that directly involved with the hole. We're involved with the ponds and the reclaiming of those ponds. And there is already written agreements on that, both financial and otherwise. Specifics. But when the hole goes, so goes the ponds. When it's done, it's done. I would suspect, perhaps, the ponds would be the last to go because they'd have to finish up what they'd taken out. You know, they could stop digging down here but they have to clean up what's on top.

Swent: My understanding is that it's another five years after they quit mining before they quit milling. I think they have stockpiled five years' worth.

Wilcox: I'll be darned. That's interesting. Because it does give time for all sides to come to agreements and conclusions or changing of the agreements in coming to a conclusion.

Trying to Attract Business to Lake County

Swent: And I'm thinking of the job picture. You know, when it started twenty-five years sounded like a long, long, long time, but--

Wilcox: Well, it's interesting because--as an example, that's sort of the history of Lake County. Blue Shield, for instance, came into the county. We grabbed them right off the vine, and they trained local people. They sent ten people up here and trained a couple

of hundred local people here. I'm very proud of having them, having gotten them here during my tenure. But they've pulled out now.

So geothermal comes, geothermal goes. Blue Shield comes-- they probably had 300 employees anyway--and Blue Shield goes. What happened with Blue Shield is they lost their master contract with Bank of America throughout the United States, I guess, so this was, you know--pulled in their horns here.

Now we have Homestake. It's very hard because of our location, because of the toughness to get here, if you will, for trucks and so forth, or to make something way up here and then have to transport it down of any size. You can't make automobiles up here. You could make widgets and put ten million widgets in a truck, a freight truck. The problem is, for instance, in the--I spent some time in Sunnyvale and in Cupertino, talking to the computer industry down there about moving up and getting out of the hubbub.

Number one, they need an executive airport for jets, for executive jets. Number two, they need a university close by because in this field what is the miracle of today very quickly turns into ho-hum tomorrow. And new miracles every day. And their management has to keep up their education in the technology and education, in bringing people in onto their payroll and work their way up by more and more education; and we don't have that educational ability close by here. But, boy, you could pack a lot of microchips in a truck or a plane, and it would be ideal. We just don't have the infrastructure here that they need.

We tried very hard and we spent a lot of money campaigning--even physicians. The two hospitals in the county got together and spent \$40,000, \$50,000 advertising--flying physicians, OB-GYNs, flying them up here, and their spouses, and showing them around, and trying to attract them up here.

We have about 1,000 children born a year and have about 1,000 pregnancies, too, a year, but we don't have--most of them go out of town to have their babies; or, when the pains begin to come, they end up sitting outside the emergency room and when the baby actually comes, then the spouse goes in and says, "My wife is outside having a baby." See, by law, emergency rooms cannot refuse an emergency, under any circumstances. So here comes a young lady that's had no write-up, no follow-up since her pregnancy on her health, nutrition, habits, alcohol, dope, what have you. And here this poor doc that's on duty has an emergency. There it is. One mistake or a perceived mistake is a

helluva lawsuit, and that doctor, male or female, loses their license, loses their profession. So it's tough.

It's changed greatly in the last five years. Greatly. Like I say, more and more there's this getting together. The county, the two hospitals--I'm on the board of directors of Sutter Hospital now; Sutter and Redbud Hospital are working together. There's a foundation that they formed, or that's been formed, the two hospitals. The Alliance, it's called. And medicine now is taking a holistic viewpoint of preventive medicine. It's forced by the insurance companies. No longer can you stay five days in a hospital. They want you out as quick as possible. It hasn't gotten around to the community that, oh, they just want us in the hospital. No, we want you in and out as quick as possible. In fact, too quick sometimes. So things have changed.

But the hospitals set up clinics. The hospitals or the foundation sets up clinics. The foundation sets up alcohol programs, addiction programs, et cetera, et cetera, et cetera. I'm the chairman of the Alliance Foundation. That excites me, the way that's going. We're beginning to work as a total community.

Swent: I think the Redbud Hospital was impacted by the McLaughlin Mine.

Wilcox: Oh, yes.

Swent: Probably much more than the Sutter Hospital was.

Wilcox: Oh, yes. And the Redbud Hospital, their board of directors are elected by the people. That's the form of hospital they have. Sutter is strictly a nonprofit hospital that Sutter now has bought into. Sutter also has bought into Redbud, but they don't have the control of the board of directors that Sutter-Lakeside has. The board is autonomous.

Swent: Elected from the local district.

Wilcox: Yes.

Swent: That's interesting. I didn't know that.

Wilcox: The water board here is elected. You're a stockholder in the water here. If you buy into the water, you're a stockholder, and the board of directors is elected. The one in Lucerne, no. That's privately owned, and it's under the PUC. This one isn't under the PUC.

Swent: For heaven's sake. I didn't know that.

Wilcox: Oh, yes. There's, I think, something like sixteen ways to form a water company in the State of California. And I think fourteen of those sixteen ways were invented by Mr. Mulholland to get the Owens Valley water to Los Angeles. Each way, there was a reason for it being invented.

Swent: A political reason. [chuckles]

Wilcox: Yes.

Programs to Retrain Workers: GAIN and Maxima

Swent: So is anything being done to anticipate the loss of jobs?

Wilcox: Yes. In the sense that we have a marketing director, which we never had before in the county. Here about five years ago, six years ago, hired a marketing director. Works closely with the Chambers. Works closely with the social services office and the state unemployment office and the economic development corporation that's here. They all have formed a coalition and are very aware of, you know, Blue Shield leaving and what to do about it.

But again, Maxima, they trained people. They see that they get their--it's one of the best--the GAIN program in the State of California. I believe it's one of the best programs that was ever invented.

Swent: And I've forgotten what that stands for.

Wilcox: I forget what it stands for, too. I'm sorry.

Swent: Now, Maxima is a private--

Wilcox: Maxima is a private firm out of Texas.

Swent: It's taken over--

Wilcox: We have contracted the GAIN program. We were running it, doing a very good job, but, again, resources, et cetera--expertise. And we contracting that out. The general feeling of every board I've been on is open to contracting out; that the private sector philosophically can do it more efficiently than government can do it. We've always taken that position. We even at one time

spent, in my tenure, time seriously considering making trips to Los Angeles, interviewing contracting out our whole health department. There are laws that allow that to a certain extent, but not the extent we--new and innovative ways. Things change. What was right yesterday and totally right is not right today, so often. And to be always aware of that, that's how you stay in business in the private sector.

So Maxima took it over. GAIN program is you're out of work, you're on welfare, you don't have a certificate of graduation, you haven't finished school, you have two kids. We'll pay your travel.

Swent: It's a program to get people off welfare.

Wilcox: Right. They pay for your children to be taken care of. You come here and you go to school. You also learn how to dress, for your own self-esteem, how to apply makeup, what's the nicest hairdo for you, what colors go together for you. You learn to type, you learn how to work computers, and we also, through the unemployment office and all the other facets, try to find you a job. Doesn't have to be here. If we hear of a job in Yolo County that would fit your background, also show you how to write a résumé and fill out applications. Fine. You go to Yolo and you be interviewed. It's a fantastic program. We've gotten in Lake County probably, since it started--I don't want to guess it, but I'm going to say something like 400 a year. Now don't quote me on that, but it's been very successful here.

My resentment is the state paints all fifty counties with the same brush. We may be very successful here. We don't get any more money. In fact, we get cuts. We'll say, I want to use Modoc County. They spent the same amount of money. Have accomplished next to nothing, except administration and turning a lot of wheels. They still get the same amount of money or the same cut. I'm a Democrat. Have been all my life. But I had great respect for Governor Pete Wilson up until recently, the last couple of years. When we had a cutback, we all knew we had to cut back and we all agreed. We were living on paper. We refused to address that, and we kept putting demands on our local elected officials. "We want this. We want that," and so they got it for us. But we have to pay.

Wilson came in, and he said, "Cut all programs." I said, "Boy, not my GAIN program. Not my GAIN program. Not this program. These programs I know are working."

But then I say to myself and I talk to my senator, I advised him, and he said, "Look, Walt, you know, the minute you start

picking this one or that one, then, boy, you've opened a political door. You know that."

I said, "Okay. If I could feel confident that if we cut 'em all back, now that we've done that, then we set up an incentive program. We check if that GAIN program is doing good here and that one there is doing bad, we cut them 25 percent and give the 25 percent to this one, to do even better. They've earned it, they've worked for it hard, and they've earned it." Right. But that hasn't happened, and so now I'm totally disenchanted.

Collaborating with Napa County

- Swent: That's too bad. I'd like to get back just a little bit. We haven't mentioned Napa county at all, and Napa County was the lead county in all of this permitting and so on that you went through. How do you feel about working with Napa County? How did that go?
- Wilcox: That went fairly well. Keep in mind, in this process that staff, our assessor, would work with Napa's assessor. Our planning would work with Napa planning. Our et cetera, et cetera. It was the bureaucrat working with the bureaucrat, and then coming before our respective commissions or boards and getting approval or disapproval. And if you got a disapproval from the commission then you'd appeal to the board. That happened. I can't think but maybe once with Homestake was there an appeal to the board from the commission. So we did it as supervisors. We're the last okay or yes or no. All this other is done by the staff out there. When staff would come, they might say, "Gee, that was a real--they were trying to really put it to us," and so forth and so on. That was a meeting that day.
- Swent: Did you ever meet with the supervisors from Napa?
- Wilcox: Not in relationship directly with--by the time it reached all of us as supervisors, there wasn't any disagreement.
- Swent: I somehow thought that there was some liaison on the supervisor level, but perhaps not.
- Wilcox: If there was, probably you're right. I'm sorry. I don't specifically remember that.
- Swent: There was something called EDAC. But that, I guess, was on the staff level.

Wilcox: That probably was staff.

Swent: That was a staff liaison then. But the supervisors, you had to vote on your own to approve--

Wilcox: Each. Right. Whatever they came back with and said, "Hey, we all were in Napa. We all met, and this is what we're all agreeing on." We might have said, "Well, we disagree with this part," and our staff said, "Well, yes. We've argued that over the last few months or few weeks or what have you, and then here's the pros and here's the cons." So sometimes maybe we gave a little bit; other times we sent our staff back and then had it straightened out. I don't remember any big controversy at that level between the three counties.

And the water, itself. We've always had disagreement, because Yolo will always support Yolo Water District, because, I think, Yolo Water District is sometimes more powerful than the Yolo board of supervisors. [chuckles] But I can't remember any top-level, strong disagreements as relates to Homestake.

Swent: The big economic impact. You got the jobs, of course, in this county. The tax inflow came both here and Napa, I believe.

Wilcox: Yes, right.

Swent: Yolo didn't get much tax benefit.

Wilcox: That I don't know. Napa and Lake were the primary--

Swent: Napa from the mine and Lake from the processing.

Wilcox: Right. And Yolo had a piece of the mine and the facilities.

Swent: You got a big tax benefit as well.

Wilcox: Yes. And the assessors of the three counties would meet and figure out how these things were going to be assessed. The same with geothermal. It was a new ball game. In fact, we really got stung on geothermal with the assessors because there was no one in Lake County making decisions; i.e., the board also, certainly, because they had to give money. And we had to pay back [chuckles] an awful lot of money to geothermal after the court case was done. Hundreds of thousands of dollars, the two counties. We were collecting a tax that was illegal. That's why they have attorneys.

Swent: So that tax benefit will end, also, of course. But also the burden.

Wilcox: See, we dropped \$3 million in geothermal taxes. Those power plants up there. No steam. Their steam gave out. Now we have-- someday maybe you and I aren't going to be sitting down, one writing and one talking. Some day other people are going to be sitting down, like you and I, and talking about the project of shipping our sewage up into the geothermal wells for disposal. We will be breaking ground on that before the end of this year. And either it's going to be the most fantastic project in a long time in this state or it's going to be the biggest boondoggle that ever happened. I think it's going to be the first.

Swent: Well, let's hope it works. That would be exciting.

Wilcox: Sewage is a big problem in every county. We've been shut down by the state on sewer plants not being adequate. I guess there's hardly a county that hasn't.

Substance Abuse and Drug Manufacture in Lake County

Swent: One other topic that we might just mention. I haven't spoken to you before about asking this question, but since you are interested in substance abuse, did the industrial development make any difference in that picture in the county, or in your district? Were there any more substance abusers now than there used to be?

Wilcox: Oh, there's more now than there used to be, but it hasn't been because of Homestake or Geothermal or Blue Shield.

Swent: Let me put it this way: There's a perception that I've heard that when you have "construction workers" come in, that things go all to pieces, that they bring in a rough element that destroys your community, and I'm wondering if you had that sort of perception. You've been working in construction. Or if it makes any sense, there's also a perception that there were a lot of people hiding out up here from the law in Lake County.

Wilcox: There is a lot of people that are hiding out up here from the law. We had one officer that's half animal and half human. He was raised that way and was put up in these hills. His responsibility was from Lake Pillsbury to Spring Valley Lake, and he caught more "wanted" coming over the hill into Lake County than were caught in Lake County or coming in on the highways. This man, he would camp out there. He would live out in the forest. He knew every inch of that forest. Lived there all his

life. And he's got a big family, and his family and so forth, and they were--

Yes, any trade. It's interesting. Yes, there's dope and alcoholism in construction. You betcha. There is dope and alcoholism in Sunnyvale, Cupertino, too, but they keep it covered up much better than a construction worker. A construction worker is a different breed, is a neat breed. It's an open, fresh air, straight talk, big heart. I'm talking about the labor within the corporations. Yes. When we're young, we drink. We're proud of our strength, and we're proud of what we do, the work. "It's a man's job" attitude. It's hurly, it's burly. The language is a little strong. But you never have to guess where anybody is coming from, like that other world.

In answer to your question, certainly any trade where more people come, you're going to have more problems in alcohol. What their livelihood is; we do get an awful lot of labs up here. We have a lot of addicts here.

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Wilcox: But our biggest problem is the labs.

Swent: What do you mean by that?

Wilcox: Where they manufacture and then take it down.

Swent: What are they manufacturing?

Wilcox: They're manufacturing--boy, I wish I had that book. I just gave it away yesterday. They manufacture what do they call it? [pausing] I can't think of the name of it now. They're called meth labs. Not methydene.

Swent: Amphetamines?

Wilcox: Amphetamines, primarily. We have one that we warned, raided this year, had two-inch steel doors. Had cameras outside, microphones around the perimeter of the house. Most of these are people that come up here and rent these houses and start the labs. Very seldom do they live in the house. They just come up, manufacture, take it down to San Francisco or Sacramento or Los Angeles. I think this year we've got something like fifteen labs and know of probably thirty more. The way the laws are written, it takes a while to get to. You know they're there.

Swent: So there is a little industry base here.

Wilcox: Oh, yes. And there is use, both men and women. The sadness is the use is by poor people, and I mean they aren't big buyers. The big buyers are down south. It's manufactured up here because we're short of officers--very, very short of officers here.

Swent: I was reading in the newspaper yesterday that you--

Wilcox: And we're competing with the State of California on salaries for prison guards. We're a training ground. A kid comes in, he goes to his college class and takes his post training. It's called post training, and that's going to the academy, and graduates from the academy, works here for six months or a year, gets a better paying job as a prison guard in Humboldt. Not Humboldt but Crescent City or down south, or gets a job as a police officer in a larger--Mendocino has the same problem. What are you going to do? You don't have the money to keep up with--

Look at the junk yard next door to me. I'm a supervisor. You'd think we would take care of that real quick. That's been there for three years. And it was just three months ago they had the contractors come and look at it to tell the county how much they'll charge to haul it all off. I mean, that guy knows every trick in the trade. Can't touch him under the law because he knows every one of the laws. We've got one person to handle the whole county. We did have two people. One retired. That one's not going to be replaced because our budget is too small. I talked to our tax collector yesterday about an RFP [Request for Proposal] for changing banks. In fact, I was on the phone with her at the house.

Swent: You're on the board of the bank, are you?

Wilcox: I'm on the board of the Lake County Bank. And she said, "Walt," she said, "I'm working the counter. I'm the department head. I'm clerking at the counter." She said, "I don't have time to do the job I'm supposed to be doing, and that's overseeing and doing what you're asking me to do." She said, "I don't have time. I'm working the counter, and they're cutting me another employee in the budget this year. I just can't keep up with it. Yes, we need an RFP to send out. Yes, we're losing money by my not doing it. Yes, I am an elected official, like you were. And so you understand, I don't have the time."

So I went back to my bank and I said, "David," I said, "it isn't that the other bank president's wife works in the auditor's department. That's got nothing to do with it. It isn't that either the tax collector or the auditor has stock in the other bank. It's that she just doesn't have time to put an RFP together." David says, "What if we put an RFP together for her?"

Swent: Now, an RFP is a Request for--

Wilcox: For Proposal. Right. It's not a bid. It's a request for a proposal. And then, when I get the Request for Proposal, I respond with--here's what we can do for you. And then you get four or five of those, and you make a decision. She doesn't have time to put together the RFP. The RFP says, "This is what I need, and this is what I want." I might, as a bank, respond to you on that, saying, "We can meet all your needs, we can meet all your wants, plus we can do this and this and this." Or I might say, "I can't meet that need, and I can't meet that one, but we can do this and this and this. You decide which one is best." She doesn't have time. So I went to David, and he said, "We'll put the RFP together. We'll give it to her. No strings attached. She can tear it apart or whatever. She can change it. Its hers now. Then she can put it out to all, everybody. And if we win, we win. If we don't, we don't."

I used to do that in my business. I used to do a lot of design of systems "betting on the come". And I'd lose jobs. I didn't get the job. Ofttimes I did, too, because they were that close and they'd say, "Hey, Walt went to a lot of work for us."

Swent: I think we're getting to the point where we ought to kind of start wrapping this up. Have we covered the things that you think are most important about all of this?

Wilcox: I think so. It meant a tremendous amount of jobs. It has meant a tremendous amount of jobs to us. It got a lot of people off of welfare that were replaced, of course, in the county by other people on welfare. We're at a population now of about 56,000; where when I came here we were about 25,000.

Swent: The population has grown a lot. In fact, Lakeport was the fastest growing town in the state for a while, I think.

Wilcox: Yes, that figures. You know, you could have no growth at all next year and have two people move in, and you only have two people living there, that's 100 percent growth.

Swent: That's right. [chuckles] But it did jump.

Wilcox: Homestake. We were grateful that they came, we're grateful they're here. Yes, it is going to have an impact on us when they leave, because it is employment, and those people spend money here in all of our businesses, and those businesses pay taxes, those employees have bought homes and will be probably moving on, leaving that void. And all of their houses will have to be taken

over by the banks if they're unable to fulfill their obligations. You see more and more of that in the paper every day.

But I can't think of anybody out there has a university who would give them 500, 600, 700, 1,000 acres free. They did this with who was it? UCLA? Said they were looking for five sites or three more sites or something. You name it or point out where it's at. We had offers from owners. "We'll donate 1,000 acres." And, of course, we didn't even come close in Lake County.

Swent: You wanted one of the university sites here.

Wilcox: Yes.

Swent: Well, that's a shame.

Wilcox: We'd have almost killed for it.

Swent: That would have been a tremendous change.

Wilcox: Ultimately, Lake County is going to be a retired, mid-[to]-high-income people.

Bob Reynolds, Outstanding Pollution Control Officer

Swent: It's spilling over from Napa County already. You can see it.

Wilcox: And with computerization, more and more people that are making more and more money, you know, higher salary, will be able to work out of their homes instead of having to go to an office. Will be able to run their business from their home. You get out in this beautiful--

Do you know we are the only county in the State of California, the only county that have not only met all rules and regulations, both federal and state, for pollution, air pollution, but have exceeded a number of those same rules? The only one in the state. And for three years now, I think.

Swent: In spite of the mine?

Wilcox: In spite of the mine; in spite of the continued, additional truck traffic; in spite of the fires and the ability to burn here during certain times of the year. And one of the prime reasons is because we have an air pollution control officer that used to work for the state many years ago who knows how to accomplish

things with industry, without breaking their backs. With geothermal, to negotiate all these things. He isn't a bureaucrat that says, "Okay, it's going to be this way." He's educated.

Swent: What is his name?

Wilcox: His name is Bob Reynolds. He is known by his peers throughout the state, and he has gone to Hawaii numerous times when they have big controversies about geothermal drilling there, as an expert witness. And just a wonderful person, himself. Nice family. He's here because he loves Lake County.

Swent: It's a beautiful place.

Wilcox: God knows that's the only reason he stayed. He can't make a living.

Swent: Well, it's too bad to feel that way.

Wilcox: It's, I guess, meant to be. We tried very hard to get industry in here, clean industry in here. But transportation is one of the biggest things, problems they have--and away from their source of material, raw materials--so--.

Wine has saved us. Wine grapes have saved us. When I moved here eighteen years ago, there was hardly a vineyard here. Maybe two.

Agriculture vs. Development

Swent: Well, maybe that will be the permanent thing.

Wilcox: They've been tearing out walnuts, and they've been planting grapes more and more and more and more and more. Although, you see, it's not intensive labor except during season. Off-season, it's not intensive labor. You've got a lot of trimming to do and everything. And that has helped a lot, but it also has saved the environment falling under development, you know, for houses. And it has kept the beauty.

When I first came here, the farmers wanted nobody here. I mean, they were adamant. They were adamant. And I understand this. Any time water or sewer comes in, boy, farming is done.

Swent: And the farming was primarily cattle?

Wilcox: Agriculture.

Swent: What?

Wilcox: Walnuts, pears, kiwis, primarily. And now, of course, grapes. But they wanted no--they have had it for generations here just like they liked it. They didn't want any outsiders, the outsiders like myself, coming in. As the years went by, the agriculturists are changing. The older ones. Their kids don't want to do walnuts, they don't want to do pears, and they go to universities and they study to be other things. And the other ones are getting too old. They haven't kept up with the business management as they should have, and so they want to sell their land to developers now.

In the meantime, these people that they didn't want in here are coming in, developing and buying these homes. There's been a switch. These people don't want that agricultural land to go into development, so what used to be like this [demonstrating] is now like this, going around like this.

Swent: The newcomers are--

Wilcox: The newcomers are saying, "We came up here for the beauty and the naturalness." The agriculturists say, "We can't make any money in walnuts any more, and we want to subdivide." This beautiful place here is all for sale, the Barns Yard. Generations. Gets too old, and his son works in a prison in Crescent City, his other sons--the kids don't want to do it. He wants to sell it. Ideal for development. It will tie Nice and Lucerne together--even though it's prime ag land.

And I have not lost, with the exception of Paradise Valley, I have not lost one acre of prime ag land in sixteen years I've been on the board. And I told them at the beginning, "Paradise Valley and Barns Yard is gone." I told the ranchers that. "That agriculture, it's gone. You just aren't going to have it any more. It's a natural growth for the communities. Sewers and water is already there. Forget that. If you fight that from going into development, you're going to find those same demands on your properties into the [deep] agriculture. This is spot zoning now. It's been built around. It's the only way for the community to grow." And they agreed with that. And every time I've been re-elected, I've gone out on my campaign and said, "I told you Paradise would go, and I'm telling you Barns Yard has to go to save the agriculture and the deep agriculture in the prime ag land in the ag areas." And I've always had support of the farmers, even though I say I talked too much.

Swent: Well, I think we've covered all the points that I had in mind. Is there anything more that you would like to--

Wilcox: Not till after you leave. In the next few days, as I--

Swent: Well, keep notes then, as you think of things, and you can add them later, because there might be things. I'm sure I may think of things that I've forgotten also. But the main points that I had noted [looking through notes] I think we--we didn't mention the Williamson Act, but that perhaps wasn't such an issue in this county.

Wilcox: No. Williamson Act has been abused to an extent, anyway.

Swent: I don't think was an issue here. And we pretty well covered the labor thing in that you, as a supervisor, you just stayed out of that. So I think we've covered it all. Okay?

Wilcox: Thank you very much.

Swent: Well, thank you. I've enjoyed this.

Regional Oral History Office
The Bancroft Library

University of California
Berkeley, California

Western Mining in the Twentieth Century Series
Knoxville/McLaughlin Project

Peter Scribner

BOYHOOD AT THE KNOXVILLE MINE, 1941-1944

An Interview Conducted by
Eleanor Swent
in 1999

Since 1954 the Regional Oral History Office has been interviewing leading participants in or well-placed witnesses to major events in the development of Northern California, the West, and the Nation. Oral history is a method of collecting historical information through tape-recorded interviews between a narrator with firsthand knowledge of historically significant events and a well-informed interviewer, with the goal of preserving substantive additions to the historical record. The tape recording is transcribed, lightly edited for continuity and clarity, and reviewed by the interviewee. The corrected manuscript is indexed, bound with photographs and illustrative materials, and placed in The Bancroft Library at the University of California, Berkeley, and in other research collections for scholarly use. Because it is primary material, oral history is not intended to present the final, verified, or complete narrative of events. It is a spoken account, offered by the interviewee in response to questioning, and as such it is reflective, partisan, deeply involved, and irreplaceable.

All uses of this manuscript are covered by a legal agreement between The Regents of the University of California and Peter Scribner dated December 13, 1999. The manuscript is thereby made available for research purposes. All literary rights in the manuscript, including the right to publish, are reserved to The Bancroft Library of the University of California, Berkeley. No part of the manuscript may be quoted for publication without the written permission of the Director of The Bancroft Library of the University of California, Berkeley.

Requests for permission to quote for publication should be addressed to the Regional Oral History Office, 486 Library, University of California, Berkeley 94720, and should include identification of the specific passages to be quoted, anticipated use of the passages, and identification of the user. The legal agreement with Peter Scribner requires that he be notified of the request and allowed thirty days in which to respond.

It is recommended that this oral history be cited as follows:

Peter Scribner, "Boyhood at the Knoxville Mine, 1941-1944," an oral history conducted in 1999 by Eleanor Swent in *The Knoxville Mining District, The McLaughlin Gold Mine, Northern California, Volume VII*, Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 2000.

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INTERVIEW HISTORY--Peter Scribner

Peter Scribner is the son of the superintendent of the Knoxville Mine during its World War II operations. After long searching, in 1999 we found he was living not far away in Livermore, California. An invitation letter was sent to him and the interview was conducted on December 13, 1999, at The Bancroft Library on the campus of the University of California, Berkeley.

Peter Scribner drives a pickup truck, and was dressed like the practical construction engineer he is: jeans, plaid shirt, bright yellow windbreaker. He recalls in his interview living first at the Kenton Mine near Alleghany, and then moving to Knoxville. We are especially grateful for this recollection as it rounds out the picture of Knoxville as a place where families lived. He remembers playing on the mine dumps, watching the blacksmith working, and attending the one-room school.

The tapes of the Peter Scribner interview were transcribed and the lightly edited transcript was sent to him for review. He reviewed it thoroughly and returned it promptly with very few changes for clarity and accuracy. The manuscript was corrected and indexed at our office. The tapes are deposited in The Bancroft Library and are available for study.

The Peter Scribner interview is one of more than forty interviews which were conducted by the Regional Oral History Office from 1993-1999 in order to document the development of the McLaughlin gold mine in the Knoxville District of Lake, Napa, and Yolo Counties, California, from 1978-1999, as part of the ongoing oral history series devoted to Western Mining in the Twentieth Century. The Regional Oral History Office was established in 1954 to record the lives of persons who have contributed significantly to the history of California and the West. The office is a division of The Bancroft Library and is under the direction of Willa K. Baum.

Eleanor Swent
Project Director, Research Interviewer/Editor

March 2000
Regional Oral History Office
The Bancroft Library
University of California, Berkeley

Regional Oral History Office
Room 486 The Bancroft Library

University of California
Berkeley, California 94720

BIOGRAPHICAL INFORMATION

(Please write clearly. Use black ink.)

Your full name PETER R. SCRIBNER
 Date of birth 3-27-33 Birthplace HOLLYWOOD, CA
 Father's full name THORNTON S. SCRIBNER
 Occupation MINING ENGR. Birthplace ST. HELENA, CA
 Mother's full name HELEN YOUNG PAYNE
 Occupation NURSE Birthplace Long Is. N.Y.
 Your spouse MARIE L. SCRIBNER
 Occupation HOUSE WIFE Birthplace OAKLAND, CA
 Your children ROSS, DENNIS, GREG

 Where did you grow up? NEVADA CITY, CA
 Present community LIVERMORE, CA
 Education 2 1/2 YEARS COLLEGE

 Occupation(s) SURVEYOR AND CIVIL ENGR.

 Areas of expertise LAND BOUNDARY, MINING CLAIM
RETRACEMENT, HYDRAULIC DESIGN, BRIDGE
INSPECTION

 Other interests or activities FLYING AND MODEL
RAICKROFTING

 Organizations in which you are active NONE AT PRESENT

SIGNATURE

Peter Scribner

DATE:

5/5/00

INTERVIEW WITH PETER SCRIBNER

BOYHOOD AT THE KNOXVILLE MINE, 1942 TO 1945

[Date of Interview: December 13, 1999] ##¹

Scribner Family in California from 1840

Swent: We are interviewing on December 13, 1999, in the Stone Seminar Room at the Bancroft Library in Berkeley.

Let's begin at the beginning and have you tell me about yourself and your life. Where and when were you born?

Scribner: I was born in Hollywood.

Swent: Hollywood!

Scribner: In Hollywood Hospital, on March 27 in 1933.

Swent: What were you doing in Hollywood?

Scribner: My dad was finishing up work at Boulder Dam.

Swent: Ah. So he was working with one of the Six Companies?

Scribner: He was working for one of the Six Companies. I don't know which one it was.

Swent: He was way out in the desert then.

Scribner: He was out in the desert, and he was also working in Bisbee, Arizona, at the copper mines also. He was a mining engineer. He went to the school down on the Peninsula.

Swent: Stanford?

¹## This symbol indicates that a tape or tape segment has begun or ended. A guide to the tapes follows the transcript.

Scribner: Yes.

Swent: What was his name?

Scribner: Thornton.

Swent: Thornton Scribner. Sounds like a New Englander.

Scribner: No, he was born in California.

Swent: How long has the family been in California?

Scribner: Since 1840.

Swent: Really! Tell us about that.

Scribner: I found a book in the Placer County Library. It was a listing of what they call California pioneers, and the Scribners were in there. A little small book.

Swent: And they came in the 1840s.

Scribner: Eighteen forty. Well, my great-grandfather came to California from New York in 1840 when he was a year old. That's as far back as--we can't get any records back [farther].

Swent: Do you have any idea how they came? Did they come around the Horn? They must have.

Scribner: No, they came from New York--they came out on wagons.

Swent: Really!

Scribner: Yes. They passed through Illinois; we know that.

Swent: With a baby.

Scribner: Yes, one year old.

Swent: Oh!

Scribner: And then my grandfather and my dad were both born there in Napa County. My dad was born in Mt. St. Helena.

Swent: That's just mind boggling.

Scribner: In fact, when you get into the history part of I guess what we're going to be talking about, the Knoxville Mine--

- Swent: We will go back to the beginning.
- Scribner: Yes. The caretaker that they hired when they shut the mine down after World War II was a McKenzie. I don't know what his real name was, but they called him Buff McKenzie.
- Swent: Was he related to Bob?
- Scribner: Yes, yes. There is a whole tribe of McKenzies there around Monticello that were all related.
- Swent: Practically all those people in that valley were Scots, weren't they?
- Scribner: A lot of them were, yes. You had McKenzies, you had Clarks--
- Swent: McGinniss.
- Scribner: McGinniss.

Acquiring Land in the Berryessa Valley

- Swent: Yes. So your great-grandfather came at the age of one year? This is before gold, of course. They were farmers, probably?
- Scribner: No; well, up until the time he was about thirty--in his thirties--we really don't know what he did. But when he was in his thirties he was a teamster, and between 1870 and 1878 he freighted from Napa to Knoxville, which was a quicksilver mining location. In 1875 he opened a hotel at Knoxville.
- Swent: You can just imagine going over those hills in those days!
- Scribner: Yes. He started buying land there in the Berryessa Valley. He started buying up land, which ultimately grew to about, oh, 6300 acres.
- Swent: Bought it from the Mexicans, I guess.
- Scribner: No. I traced title back a few years ago--
- Swent: Did you?
- Scribner: Yes. I spent a lot of time at the Napa County courthouse, in the recorder's office. I went back to where--the parcels that he got were acquired from people with the name of Anderson, and

then there was a Joe Moore. And then tracing back prior to what they call Book One, which was Book A [laughs]--some of the deeds--or descriptions, rather--were written in Spanish. I found one where the Berryessa brothers had lost some of their land either in a poker game or bad bet or something, and they had a sister named Anastasia that couldn't write, so she had to make an "X," which was purported to have been her mark. That's in the chain of title of the land in the Berryessa Valley. This hasn't got much to do with the Knoxville. [laughs] It's all kind of linked in a way.

Swent: It is. And somebody will be happy to find that some day in here. So that's all under water, now?

Scribner: It's all under water, yes.

Swent: Did you still own land there when it was--

Scribner: No, it was bought out by the Bureau of Reclamation. Bought out all the ranches.

Swent: But I mean from you? Did you still own land there?

Scribner: Well, my dad was not in part of the ranch. There was my dad and two brothers. He had another brother who was unfortunately killed when he was eighteen, on a motorcycle accident. But his other two brothers--the grandmother--were the owners.

Grandfather Marcus Leroy Scribner

Swent: Let's get some names here. What was your grandfather's name?

Scribner: My grandfather's name was Marcus, Marcus Leroy.

Swent: And his wife was?

Scribner: Well, his original wife, which was my dad's mother, died in 1908, and then Marcus remarried.

Swent: What was her maiden name?

Scribner: Hanson, and her first name was Laura.

Swent: I was wondering what the family name was.

Scribner: He remarried the daughter of this Joe Moore that he'd gotten land from. And I didn't tell you the whole story. The way he got the land was that he loaned him some money, and when this Moore didn't or couldn't pay him back, he took the property, along with a few--this was in the Napa County recorder's office also--along with a few head of assorted farm animals. A chicken or two. And then, ironically, my grandfather died at an early age, like about thirty-eight in 1921.

Swent: Do you know what he died of?

Scribner: No, we don't. We don't know what he died of.

Swent: You don't know what the wife died of.

Scribner: The first wife? No.

Swent: It would be interesting to know.

Scribner: Have no idea.

Swent: They just died.

Scribner: They just died. Could have been pneumonia.

Swent: Or tuberculosis.

Scribner: Tuberculosis.

Swent: Anything, yes. Okay. So he died young.

Scribner: My grandfather was only thirty-eight when he died.

Swent: And he had four sons and a daughter.

Father Thornton Scribner Chooses to Study Mining at Stanford

Scribner: Yes. Well, he was the father of my dad plus the two other brothers. And then his second wife was the mother of my dad's --actually my dad's half-brothers. But it was presented to them that they could either stay and work the ranch or they could go to the university and get an education, and my dad chose to go to the university and get an education. That's why he went to Stanford and studied mining and became a mining engineer.

Swent: When was he there? Do you know?

Scribner: Nineteen twenty-four to 1927.

Swent: Was it still free in those days?

Scribner: I don't believe so, no.

Swent: There was a time I think Stanford was free.

Scribner: No, it wasn't free then.

Swent: Before that.

Scribner: Because the family would provide the education. You made your choice: Do you want to have an education and go out on your own, or do you want to work the ranch and then own the land--end up owning part of the ranch.

Losing the Ranch to Lake Berryessa, a Bitter Experience

Swent: And his two half-brothers stayed on the ranch?

Scribner: Yes. They did, yes.

Swent: Up until the time when it was--

Scribner: Yes, they got bought out in the '51, '52--

Swent: By the Bureau of Reclamation. I see.

Scribner: They started to relocate in about 1950 or '51 because they could see the handwriting on the wall. They were going to relocate over to Yolo County and put in a cattle feeding lot in Yolo County. In fact, they did.

Swent: Do you have any recollection of how they felt about all this?

Scribner: Oh, they were extremely bitter. All the ranchers were bitter.

Swent: Why?

Scribner: Well, they felt that it was political and that--it had been a project that was envisioned back in the Depression. It was a New Deal project. And then World War II came along, and it got pigeon-holed someplace. And then when the war ended, they

started rummaging around back in Washington, and they resurrected the dam project, and the whole valley just fought it. I mean, they just fought it tooth and nail. It was one of the richest agricultural areas in all of California. They got two or three cuttings of wheat every year. They had vineyards; they had orchards; they grew livestock.

My dad got sent back as a spokesman to a Congressional hearing. In fact, he got a letter--I've got it at home someplace--he got a letter from Earl Warren, when Earl Warren was governor of California, because Warren was against it.

Swent: Oh, he was?

Scribner: Yes, Earl Warren was against it. And there's a letter to my dad, on official state governor's stationery, signed by Earl Warren, thanking him for his efforts.

Swent: That's interesting. I somehow somewhere got the impression that it benefitted a friend of the governor and that was why it was being pushed.

Scribner: The only justification was--and they used it; they really stretched--they used the fact that Travis Air Force Base in Fairfield--they used that, saying the necessity--the dam couldn't be justified as being cost effective, so they said that it was a national defense thing and they needed the water because the town, the base, and all this other kind of malarkey [laughs]--which was so much hogwash because--

But I'll tell you another irony. The Solano Irrigation District, which controls the level of the lake--my cousin, okay?--is the water-master that controls how much water goes in and out of [Lake] Berryessa, if you can believe it. Talk about an irony.

Swent: What's his name?

Scribner: His name is Jim Scribner, same as my brother.

Swent: Okay, but another Jim Scribner.

Scribner: He lives in Dixon.

Swent: And he's the one that controls the water level.

Scribner: Yes, for the Solano Irrigation District.

Swent: Power generation wasn't the primary thing then.

- Scribner: No. Power generation is insignificant. Well, it's not that high a dam. For power generation, you need several hundred feet of what's called head, which is the pressure which is created and equated into pressure to drive the turbines. Also the dam's only a couple, three hundred feet high. It's not a high dam as dams go.
- Swent: No. And the irrigation wasn't really a necessity either.
- Scribner: Not at that time, no. And it is really just used as recreation now.
- Swent: So that's part of why people were so upset. They just didn't see that it was a necessary project.
- Scribner: In 1945, '46, '47, '48, those people over there in Berryessa-- they were just in hog heaven. Even during the war, they didn't even know there was a war on as far as--they had plenty of food. They raised their own food, basically. And then when the war ended, they were still happy. And it just displaced an awful lot of people.
- Swent: Oh, they speak of it as just an ideal place to live, that they just loved living there, and the families that have been there for a hundred years, most of them, then just had to move out. Pretty sad.
- Scribner: I can imagine how it would affect the people who had lived there their whole lives, were practically born and raised there.
- Swent: Yes. But anyway, your father went to Stanford--
- Scribner: He went to Stanford--
- Swent: --and became a mining engineer.
- Scribner: --and became a mining engineer, yes.
- Swent: And worked down in Boulder Dam.
- Scribner: Well, when he was a young lad he was in a survey crew. He didn't have any real responsibilities at that time until he naturally got older, got some seasoning.
- Swent: But your mother--where was she living? In Hollywood? Or was she out at the camp?
- Scribner: No, no, she was in Hollywood.

Swent: She didn't go out to the--

Scribner: No, no.

Swent: --work site.

Scribner: No.

Swent: It was pretty tough out there, I guess.

Scribner: Well, there was no family living anyway.

Swent: Didn't have trailers in those days.

Scribner: No.

Swent: Where was your mother from?

Scribner: She was from New England.

Swent: Oh, really?

Scribner: Yes. She was born in Massachusetts.

Swent: Oh, really? What was her name?

Scribner: Helen. Well, she's still alive.

Swent: Oh, good.

Scribner: Helen.

Swent: What was her maiden name?

Scribner: Payne, P-a-y-n-e.

Swent: Okay. That's right. Your brother Jim did tell me that she's still alive. So she lived out at Knoxville. We'll get to that in a minute.

So anyway, she was in Hollywood. How did she happen to pick Hollywood as a place to live?

Scribner: It's just where we happened to be when it happened. Born in the Hollywood Hospital. I don't even think it's there any more. I think they tore it down and put in a supermarket.

Swent: But your dad was working out at--

Scribner: He worked at Boulder Dam.

Swent: How did they meet, your parents?

Scribner: I have no idea.

Swent: She didn't go to Stanford.

Scribner: No. No, no. She went to nursing college back East, and I believe he met her when she came out on a vacation one time, and they met, and that's the only thing that I know of how they met. My dad's been dead--he died in 1950.

Swent: So then from Hollywood where?

Scribner: Well, let's see. I was born there. We didn't actually live there. Eventually we came to the Bay Area. Used to live right off of Dwight Way over here.

Swent: In Berkeley.

Scribner: Yes.

Swent: Is Jim older than you?

Scribner: No, he's a year younger than me.

Swent: So you went to school here in Berkeley?

The Kenton Gold Mine in Alleghany, about 1938

Scribner: No, went to kindergarten, and that was--my dad was up in Sierra County at that time at the Kenton Mine, which was a gold mine.

Swent: That was up near Alleghany?

Scribner: It was in Alleghany, yes, yes.

Swent: And jobs were hard to find in those days.

Scribner: That was in the depths of the Depression.

Swent: So he was scrambling, perhaps, to find work?

Scribner: My dad? No, he worked for--the company was Gamble & Wilson, which is the Gamble that's mentioned there at Berryessa and then also at Knoxville.

Swent: He was the superintendent at Kenton?

Scribner: Yes, he was the superintendent up at Kenton.

Swent: So he was okay.

Scribner: Oh, yes. He was all right.

Swent: Good.

Scribner: Well, they didn't have a kindergarten there. That's why we had to live in Berkeley for that one school year, so I could go to kindergarten down here. And then we moved up to Alleghany, and then I went to first grade, first and second grade.

Swent: In Alleghany.

Scribner: In Alleghany.

Swent: You lived in the town, then, of Alleghany?

Scribner: The school was in the town. The mine itself was down the canyon about a couple of miles, a mile or so.

Swent: I know where it is. I've seen it.

Scribner: The Kenton Mine, yes. Oh, you've been to the Kenton Mine?

Swent: Yes.

Scribner: Is it still kind of a resort thing?

Swent: Not that I remember, no. I was visiting the Dickeys,² and we drove down. That's where the Kenton Mine was. I don't recall seeing any buildings.

Scribner: Oh, okay. Well, the last time I was there was, oh, a good number of years ago. It had been turned into, like, a resort where people would come up and rent a cabin or whatever.

²Donald Dickey, *The Oriental Mine, 1938-1991*, Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 1996.

Swent: So they left the buildings there then.

Scribner: Some of them, yes. The old stamp mill across the creek--they tore that down and salvaged all the machinery and everything out of that when they shut the mine down.

Swent: Do you recall anything about the processing, what they were doing there?

Scribner: At the Kenton?

Swent: Yes.

Scribner: Yes.

Swent: All right, tell me about that. It was gold.

Scribner: Yes, it was a gold mine. It was a hardrock--

Swent: Quartz?

Scribner: Hardrock quartz mine, yes. And they would mine--

Swent: The gold was very pure specimen type?

Scribner: Some, but not like they got out of Sixteen-to-One Mine. The Sixteen-to-One had absolute--oh, they just had awesome--the Kenton once in a while would get some, but not of the quantity or the magnitude that the Sixteen-to-One had.

They would extract--the same process as any quartz mine--they would blast and extract the ore, run the ore through a crusher, and then run it through the stamp mill, and then recover the reduction, the reduced particles and put them on what are called flotation tables--

Swent: They were using flotation.

Scribner: Yes. You know, they would vibrate back and forth and have little riffles in them, simulates like you do if you were panning?

Swent: Yes.

Scribner: They used cyanide. Yes, they used cyanide, cyanidation.

Swent: Cyanide and flotation.

Scribner: Yes.

Swent: They no longer used mercury.

Scribner: They didn't use mercury at the Kenton.

Swent: They were just kind of on the edge of--in the earlier days they probably would have.

Scribner: Yes.

Swent: Do you remember the noise of those old stamp mills?

Scribner: Oh, yes. Tremendous noise.

Swent: How many stamps were there? Do you know?

Scribner: I don't recall at the Kenton, no.

Swent: Did they operate around the clock?

Scribner: Yes.

Swent: How many people were working there?

Scribner: At the Kenton?

Swent: Yes.

Scribner: Probably sixty or seventy.

Swent: Three shifts?

Scribner: Three shifts.

Swent: Was there a boarding house or a bunkhouse?

Scribner: They had a bunkhouse, yes. They had a boarding house.

Swent: Your dad ran the whole show. Did your mother have responsibilities that you recall?

Scribner: No, she just was a mother and a housekeeper.

Swent: What kind of house did you have?

Scribner: Well, we had two houses. [chuckles] The first house when we first went there was a typical house at a mine. It sat up on the side wall and was kind of small.

Swent: Wood?

Scribner: Wooden frame house. And then after a short period of time, we moved into Mr. Wilson's big house that he had. He had, like, a log house, with a huge fireplace in it. Really, really, really stylish. [laughs]

Swent: What did you do for power?

Scribner: They had electricity.

Swent: Did they generate their own?

Scribner: Oh, no, there was power lines.

Swent: PG&E?

Scribner: PG&E, yes. They had PG&E.

Swent: And water?

Scribner: And water.

Swent: How did you get that?

Scribner: The water?

Swent: Yes.

Scribner: The water came up out of the creek upstream from where the mine was. Came out of Kanaka Creek.

Swent: So when you first went there, Mr. Wilson was on the site.

Scribner: No, Mr. Wilson was not on the site, but Mr. Wilson owned the big house--like I said--when he was there. And I'm not sure, but Mr. Wilson could have passed away, and then the house was available. George Gamble then, who was the remaining partner, told my dad that we could go live in it.

Swent: That was pretty exciting, yes?

Scribner: Yes.

Swent: Did it have a lot of rooms?

Scribner: Oh, yes. It was a big house.

Swent: Perched on the hillside?

Scribner: It was on the hillside, yes. Well, everything is perched on the hillside! [laughter] But this was up where they had flattened out a bench. There was a driveway that came up. It was big enough to where you could drive in and back up and turn around and go back out the other way.

Swent: What kind of car did you have?

Scribner: We had a black Chevrolet sedan. I believe it was--I'm pretty sure it was a 1936 model, four-door sedan. That was our personal vehicle. My dad had the use of a Chrysler two-door coupe, which was the mine car. He could use that for mine business.

Swent: So the roads were pretty good, then.

Scribner: I wouldn't say the roads were pretty good.

Swent: No?

Scribner: In the wintertime, when it rained and there was snow, it was--we were pretty much locked in for the winter.

Swent: They get a lot of snow up there, yes.

Scribner: A lot of snow.

Swent: And your dad was in charge of the roads and everything?

Scribner: Well, he didn't have the roads. Getting around on the mine property itself when the snow got up so deep, they would just dig tunnels from building to building through the snow and then string lights. From the cook house and the bunkhouse and the mine buildings, which were on one side of the creek, to get across the creek where the mine buildings were, they just dug a tunnel through the snow. There was a bridge across the creek. While the snow didn't quite--it didn't cover the creek because the water running down the creek would prevent the snow from building up, and then they would get across to the mill building, which was perched on the side of the hill, and then they would just walk up inside the mill to get to the tunnel. The mine at the Kenton--the shaft--you went in a tunnel a little ways, and then you went down the shaft. You went down pretty much like the same as the Sixteen-to-One. The main shaft was inside the mountain.

Swent: So they raised the ore then and brought it up that same adit that they went in?

Scribner: Oh, yes, yes.

Swent: And then it went--

Scribner: Yes. The hoisting works was inside. The hoist house was inside the mountain, and then they dumped it into the bins, chutes, and then they would pull the chutes through--load the ore cars up.

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Swent: It must have been kind of exciting in the winter with all that snow.

Scribner: Oh, when you're a kid--like, five, six maybe, five or six years old--

Swent: You said first and second grade maybe.

Scribner: Yes.

Swent: A lot of fun.

Scribner: Just fantastic.

Swent: Sure. Did you walk to school?

Scribner: No, we had to be taken to school. Yes, we had to be taken to school.

Swent: A lot of people tell about how hard it was to keep cooks at these places.

Scribner: Cooks?

Swent: Do you remember hearing anything about that?

Scribner: The cook at the Kenton Mine and his wife--they both worked, but the only ones that I can recall ever was there--they never had a problem with them.

Swent: And it was a couple--

Scribner: It was a couple.

Swent: --that was cooking.

Scribner: Yes.

Swent: Maybe that's why they were more stable!

Scribner: Well, Gamble paid better than average. Although he was not union, he paid equal or better than union pay. They treated the people pretty good, so he didn't have any problem. They had problems later on over at Knoxville during the war keeping laborers because they would want to come and work for a week or two and get a payday, and then they would want to go to town and drink, and so there was kind of a small, constant turnover of certain laborers.

Swent: Of course, during the Depression, you didn't have such a hard time getting people to work.

Scribner: No, there was no--

Swent: They were desperate to work.

Scribner: Yes.

Swent: What about drinking? Was there liquor up there at the camp at Kenton?

Scribner: Oh, not--only people--you know, in their private homes.

Swent: In the bunkhouse? Of course, you were little. You wouldn't remember maybe, but--

Scribner: No, I'm pretty sure that Gamble had a prohibition against booze in the bunkhouse. I'm almost pretty sure they had that, yes. We called him Uncle George. [George E. Gamble]

Swent: Uncle George?

Scribner: Uncle George.

Swent: What was he like?

Scribner: Well, he was unmarried. He never married. Lived his whole life in Palo Alto with his sister, Elizabeth [F. Gamble].

Swent: In Palo Alto?

Scribner: Yes. He would come around the mine, oh, once a month maybe, twice a month--always impeccably dressed. Wore a necktie, wore a coat, wore a hat.

Swent: Did your mother have him for dinner?

Scribner: Oh, we had him for dinner many times, yes. Many, many times. In fact, during the later years of his life, my mother went down and "specialied" for the Gambles in Palo Alto.

Swent: Really?

Scribner: Yes.

Swent: As a nurse.

Scribner: Yes, yes, she took care of him.

Swent: There's another thing I wanted to ask about it. What about health care--accidents and so on--was your mother called on to help with that?

Scribner: No, she didn't get involved, no. She didn't get involved.

Swent: Do you recall any accidents up there?

Scribner: Oh, I'm sure there must have been some, but I don't recall.

Swent: You don't remember.

Scribner: I don't recall.

Swent: The nearest hospital was a long way away.

Scribner: Yes.

Swent: Was there a doctor in Alleghany?

Scribner: Yes. In fact, the doctor in Alleghany was a guy that my dad knew at Stanford.

Swent: Oh, really?

Scribner: Yes. Vernon Padgett. I think Padgett and my dad may have roomed together at Toyon Hall. I think that's where they-- because he was going through med school, and my dad was, you know, taking geology and mining and all the other things.

Swent: So this takes you through to about the beginning of the war, then.

Scribner: Just about up till the time--

Swent: Were you there at Pearl Harbor time?

Scribner: Yes.

Swent: Do you remember it?

Scribner: I remember--well, all we had was radio, of course, and I remember listening to Roosevelt on the radio. I really didn't understand what was going on, not at that age.

Swent: You were just seven or eight.

Scribner: Well, the war in Europe was something that had been going on, and that--but then the Japanese attack on Pearl Harbor didn't seem to affect me much. I mean, I didn't--

Swent: You were only eight years old.

Scribner: Yes, I didn't really understand why.

Swent: Was the mine closed by L-208, then? [War Production Board order which closed most gold mines]

Scribner: Yes, yes, that's when we went over to Knoxville.

The Knoxville Mine, 1942 to 1945

Swent: When it was closed. L-208 was February of '42, I think.

Scribner: I'm not sure. Well, we went to Knoxville [sighs] in '42. We went to Knoxville in '42. The Kenton had shut down prior to that.

Swent: And it was because of the War Production Board order that it was closed.

Scribner: Yes, and then Gamble--mercury was in need because of its--to manufacture explosives, so there was a greater need for the mercury mining than there was for gold mining.

Swent: And did Gamble already have the Knoxville?

Scribner: I believe so, Eleanor. I'm not sure.

Swent: I should have looked that up.

Scribner: Yes, I'm almost certain. I'm almost certain, yes, that he owned the land because it was all open range. And his brother,

Launce Gamble, was a rancher there in Berryessa, and that was all open range up there.

Swent: So you moved over there then.

Scribner: Well, not immediately. They didn't have a school. [chuckles] So I had to spend a school year on the ranch in Berryessa, going to school.

Swent: Where did you go to school then?

Scribner: A mile down the road from where the ranch was, a one-room schoolhouse.

Swent: In?

Scribner: Berryessa.

Swent: Berryessa. Was there a town called Berryessa?

Scribner: No, it was in the valley. It was a mile--it was--where the ranch was--it was a mile down the road towards Monticello. There was a little one-room schoolhouse on the intersection of where the Berryessa road goes north-south, okay?--from Monticello, up to Knoxville. And there was an intersection that went on over to Pope Valley, and that's right where the school was.

Swent: Your brother, too?

Scribner: My brother, too, yes.

Swent: What do you remember about that?

Scribner: One-room schoolhouse! All grades.

Swent: One through eight.

Scribner: Whatever, [laughs] depending on how many kids you had and whether you had someone in the second or maybe didn't have anybody in the second. My brother and I both skipped grades. I skipped--

Swent: You went as fast as you could go.

Scribner: --third or fourth, and I think he skipped third or fourth.

Swent: Didn't do you any harm.

Scribner: No, I don't think so. [chuckles]

Swent: No. But that was only one year, you said.

Scribner: Yes. Well, then we went up to Knoxville, and we lived in Knoxville, and they had gotten a schoolhouse built. I think they had a schoolhouse, but they needed a teacher. And the first year we were at Knoxville, we didn't have any power. We had kerosene lights--kerosene lamps and candles.

Swent: A challenge for your mother.

Scribner: Oh, she hated it. She hated the smell of it.

Swent: Did she?

Scribner: Oh, that kerosene stove? That cook stove? Oh, she hated it. She hated it.

Swent: Not too happy.

Scribner: She wasn't a happy camper, I'll tell you! [laughs] They had no refrigeration. They had a canvas thing--

Swent: Cooler?

Scribner: Cooler out in the--you know, drip water on it and get evaporative cooling.

Swent: It gets pretty hot there in the summer, too.

Scribner: Yes, it does.

Swent: Did you have a nice house?

Scribner: We did. We had one of the only houses that was existing at the time, and it had been built I guess by the prior owner, and it was a three-story house--kind of stacked, with a cupola on the top. There was, like, a screened-in porch at the top, and that's where I slept. That was my bedroom up there.

Swent: It was up on the rise up, the flat, above the camp there?

Scribner: Yes. It's not there anymore. The house has been--

Swent: No, there are no buildings at all.

Scribner: The buildings have all been--

Swent: But there is sort of a level flat across from the mine.

Scribner: Yes, yes, that's where the houses were.

Swent: There's a level area where I think the houses were.

Scribner: That's where the house used to be, yes.

Swent: Probably kind of nice house?

Scribner: It wasn't all that nice a house, but I thought it was a good house.

Swent: Sure. You didn't have to fuss with all those kerosene lamps!

Scribner: No.

Swent: No. Were there ever fires? House fires?

Scribner: House fires? I don't recall any house fires, no. There were grass fires, a lot of wildfires. Every summer there would be wildfires.

Swent: That would be frightening.

Scribner: Yes. Well, then, we had jobs--my brother and I--we would take the mattocks and go around and have to hoe the weeds back--you know, clear back a couple or three feet all the way around the house. Make a fire break.

Swent: What did you do for water?

Scribner: There was a spring. We had water that came out of the side of the mountain into a tank, and then it was a gravity pipe which ran from the tank down to the house. The water was good. It was good and cold.

Swent: Where did your mother go? Did she drive into town for supplies--food and so on?

Scribner: Yes, we went to--my brother and I at the time were having teeth straightening. We went through that. About once a week or so --maybe once every two weeks--we would go to Napa because that's where the dentist was.

Swent: How did you get over there?

Scribner: The highway, the road.

Swent: Which one? To Monticello?

Scribner: Well, you go down to Monticello and just before you get to Monticello you go across the--which was Putah Creek. There was a big old stone bridge across Putah Creek, which is still there. It's under water, but it's still there. That took you --put you on the highway, which--I think it's called Highway 29 now that runs over the mountain to Napa, down past--through Silverado.

Swent: So you went over there for your basic shopping?

Scribner: Yes, she would go--while we would go to the dentist--and we would each get a dime--we could go to the movie--and then she would pick us up after the movie. [laughter]

Swent: How long did you live there at Knoxville?

Scribner: We were there till about '45.

Swent: Forty-two to '45?

Scribner: We were there about two and a half years.

Swent: Just through the war.

Scribner: Yes.

Swent: But it continued mining, operating later.

Scribner: Yes. Well, Gamble leased it out after the war. He leased it out, and my dad went over--he was still working for Gamble. My dad went on over to do exploratory work in Nevada, looking for lead and zinc. But Gamble leased Knoxville out for some period of time.

Swent: Then you didn't stay on at Knoxville when your dad went to Nevada?

Scribner: No, no, we moved to Nevada City. We moved to Nevada City.

Swent: In California, but your dad went to Nevada.

Scribner: Yes, he was doing exploratory work for Gamble in Nevada.

Swent: I see. But you were based in Nevada City.

Scribner: We were based in Nevada City.

Swent: Did you go to high school there?

Scribner: Yes. I went to seventh and eighth grades in Nevada City, and then high school.

Swent: Then high school. Okay. And then you went on and studied engineering.

Scribner: Then I went on and studied engineering.

Swent: Well, let's go back and concentrate on Knoxville, then.

Scribner: Okay.

Swent: Tell us what do you remember about first getting to Knoxville? We talked a little bit about the house, but--

Scribner: Yes, we got there--because--well, I'd been staying on the ranch because of going to school, and it wasn't until I started going to school at Knoxville when I really started paying a whole lot of attention to what was going on around there.

Swent: What was your dad's responsibility? He was superintendent.

Scribner: He was the superintendent. He was the general manager, like the general mine manager, and did all the--well, he did all the ordering. And of course he had to make decisions as far as what they were going to do as far as the mine operations, itself. They had another gentleman by the name of Glenn Truitt who was the plant superintendent. He actually was in charge of the smelter, the smelting operations.

Swent: As I recall, there was kind of a store there, wasn't there, a general store of some kind?

Scribner: There used to be, I guess, back in the early--

Swent: But when you were there, there wasn't?

Scribner: No.

Swent: So he didn't have that responsibility.

Scribner: No, no, no. No, when we got there, the only buildings--the only older building was a big stone, block stone building that could have been where the store was at one time.

Swent: That was still there up until--

Scribner: That was there up till--

Scribner: Yes, up until not too long ago.

Swent: Nineteen eighty, maybe?

Scribner: Might have been a little bit--yes, maybe 1980 or something. I'll just say twenty years. I think Gamble just had everything demolished because of the liability thing, people coming up, squatting. There was a lot of unsavory activities going on, so I just think Gamble--in fact, I'm pretty sure Gamble just had everything demolished.

Swent: Yes.

Scribner: But that was the only building except the house that we lived in, which wasn't all that--that house didn't go anywhere near back to the 1860s or whatever. There was one or two other kind of shanty-type houses. A big wooden barn down on the--a couple of big barns--equipment-type barns down along the creek, along the road where you came in. And that was about it.

Swent: So how many people were living there?

Scribner: When the Knoxville was working?

Swent: When you were there.

Scribner: When we were there? Well, it's hard to say. The one-room schoolhouse was about [sighs] eight or ten kids maybe. There couldn't have been more than--

Swent: Were they all living right there?

Scribner: Yes, the school was--Gamble paid for the schoolteacher. He built a little house, built a little schoolhouse, and she had living quarters in the back. The living quarters were in the back.

Swent: So this was only for the children of his employees.

Scribner: Yes, that's all. There may have been a kid come down from the Reed Mine.

Swent: Well, this is what I was wondering, if some of the Reed--

Scribner: The Reed Mine was about--what?--three or four miles, I think, up from--Okay? There was maybe one or two kids who came down from the Reed Mine.

Swent: I think so. I think that somebody told me that she had gone to school at Knoxville from the Reed Mine.

Scribner: What was her name?

Swent: Della, Della Conner.

Scribner: Oh, Della! Oh, Della Conner?

Swent: Didn't she go to the Knoxville school?

Scribner: Della did, yes. Della Conner?

Swent: Yes.

Scribner: Yes, I knew Della Conner, yes. Her dad was Jim Conner.

Swent: He was working at Reed, wasn't he?

Scribner: Jim Conner was--he was a wrangler.

Swent: Oh, yes. He worked for Gamble as a wrangler.

Scribner: Yes, he was a wrangler. But I remember Della. Yes, Della Conner. Yes, I remember her. Where did you run into her?

Swent: I interviewed her. She's one of our--she's very interesting, and I really enjoyed interviewing her. She's Della Underwood now. She ended up working as an engineer in the mine.

Scribner: Oh, did she?

Swent: Yes.

Scribner: Up there at the Manhattan?

Swent: Right.

Scribner: I'll be darned.

Swent: Yes, she worked there for fifteen years or so.

Scribner: Well, I'll be darned.

Swent: As a surveyor. Started out surveying and then became part of the mine engineer crew.

Scribner: Oh, good. Interesting.

Swent: Yes. But I think--well, I remember. She said she went to the Knoxville school.

Scribner: Yes, I remember her. I remember her, yes.

Swent: But not from Reed, but I was thinking somebody else said that they lived up at the Reed and went to Knoxville school.

Scribner: I think there were kids that lived there, but I can't recall.

Swent: Not a lot.

Scribner: No, there may have been just one or two, because there was only a dozen kids in that school.

Do you recall the old Ralph Edwards Truth or Consequences radio program for school children around the country to compete in? Collecting scrap iron for the war effort caught on like wildfire with the dozen or so kids going to the one-room school at Knoxville. While the miners were mining cinnabar, the kids were "mining" scrap. We foraged around the dumps for anything we could find--busted mine car wheels and axles, old engine parts, old motors, mine rail, pumps--you name it. If it wasn't in use or locked up somewhere, it was fair game. Periodically all this junk would be loaded into the mine dump truck and taken to a collection center in the little town of Winters, where it was weighed. I don't recall which school won, but to this day, I feel the contest was rigged. [laughs]

Swent: And very few houses there at the mine?

Scribner: Gamble built about a half a dozen small houses for married miners that had families, and the rest of the guys, if they weren't married, they lived in the bunkhouse. They built a big bunkhouse.

Swent: I see.

Scribner: Most of the guys who worked there weren't married. They were single.

Swent: Again, did he have to provide a cook and meals and so on?

Scribner: Yes, same cook. The same one they had at Alleghany.

Swent: The same one came down. That was kind of a key part in the picture.

Scribner: Oh, yes. I remember--oh, boy!--they always had something good to eat.

Swent: Well, this is part of keeping your men happy, wasn't it?

Scribner: We weren't supposed to eat any of the mine food because it was for the workers, the guys who didn't have families. But she would always have fresh apple pie or chocolate cake or--and a lot of the guys would make their lunches--the guys every day would make their lunches, and they would have nice lunches: roast beef sandwiches, fresh apple pie [laughs].

During the war, it was patriotic for people to grow a victory garden. Because the land around the mine was open range and the deer had a penchant for eating plant leaves, it was almost impossible for individual families to raise decent gardens, so some of the miners erected a deer- and cattle-proof sturdy fence along the south side of the old stone mine building for us kids to grow our veggies. We had tomatoes, pole beans, squash, and other stuff.

Swent: The miners didn't come out for lunch? They carried their lunches into the mine?

Scribner: No, they took their lunch with them.

Swent: So she would pack their buckets for them in the morning?

Scribner: Yes.

Swent: Some things don't change much from generation to generation, do they?

Scribner: No, they sure don't.

Swent: No. So the mine was--there was an underground mine at that time, all underground?

Scribner: No. They started out--they sunk a new shaft called the Knoxville shaft. The original shaft, which was the Redington shaft, which was part of the earlier operation, was a vertical shaft, and the decision was made to go out up on the hill and sink an incline shaft with an attempt to intercept the vein below. They mined out of the shaft for part of the time and then decided that it would be more profitable to just go in open pit, do it open pit. So they just started an open pit excavation right next to where the incline shaft was. In fact, that open pit--there's plenty of that still visible.

Swent: Yes, you can see that.

Scribner: You can see that big old scar.

Swent: Yes, right.

What sort of equipment do you remember?

Scribner: Well, on the excavation?

Swent: Any of it. The headframe and--

Scribner: Oh, yes, the headframe. Well, the old Redington headframe was wooden, timbers. But the new--the Knoxville shaft, when they set the Knoxville shaft, it was fabricated steel.

Swent: Do you recall what sort of drilling equipment they used?

Scribner: Yes, compressed air, regular rotary rock drills, the stopers and the column-mounted liner drills.

Swent: Did equipment salesmen come around and visit you? Do you remember that?

Scribner: No, the equipment salesmen didn't come around, but my dad in the office had all of these huge big catalogs of all the different equipment suppliers, manufacturers and suppliers of mining equipment. They would find something they needed, and they would order it, and it would get just shipped, freighted in. No salesmen. There may have been, but I don't recall.

Swent: I was wondering because sometimes that was kind of a big event when the equipment salesman would come by.

Scribner: I'm sure that there was probably people come by trying to sell something, but it would be pretty hard to find somebody to listen to.

Swent: Didn't affect you?

Scribner: No.

Swent: What brand of equipment did they use? Do you remember any of the names?

Scribner: Yes. They used a lot of equipment from Joy Manufacturing Company, Leroy, Atlas-Copco--

Swent: I was wondering. Did they go to Atlas-Copco drills, then? They were just coming in then.

Scribner: Atlas-Copco, Ingersoll Rand. Most of the air-powered tugger motors and stuff like--

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Swent: We took a little break here and found a little difference of opinion on when the Kenton Mine closed. We checked Donald Dickey's oral history, and he thought that they bought it in '39, but I think maybe it was a little later than that.

Scribner: I think it was, too. I'm pretty sure. He may have been negotiating for it in '38 or '39 or whatever. I believe that at first Gamble leased it to Dickey.

Swent: Those things take a while.

Scribner: Yes.

Swent: But anyway, you moved over to Knoxville when you were already in school. And then you were telling me there's an annual reunion at Spanish Flat of people that were out at Berryessa.

Scribner: Yes, just kind of an impromptu thing because of the cemetery being there. It isn't so much an organized reunion type thing. It's on Memorial Day, when people go to visit the cemeteries. What got the Scribner family involved a few years ago was my cousin. They live in Woodland. His dad is buried there, along with my dad, along with their grandfather, and along with their great-grandfather!

Swent: And they probably had been buried in Monticello, the cemetery there.

Scribner: Yes. Everybody was buried in Monticello. Now, there's one or two new burials at Spanish Flat of people who have passed on since they relocated the Monticello cemetery.

Now, I was looking into one of the things about Knoxville. I believe my brother said something that you were inquiring as to--about a cemetery at Knoxville.

Swent: Yes.

Scribner: I don't recall a cemetery. I've been trying to wrack my brain, and I do not recall a cemetery at Knoxville.

Swent: Well, it was Tony Cerar who took me down there, and we climbed up--across the road from where the house was--you know, where the mine and the mine buildings were, and then behind, up above there. We went on up a hill. I don't know what direction that would be, north, maybe? I'm kind of turned around on compass directions there. But anyway, it was beyond the mine, up the hill, and we tramped around and hunted and hunted, and he couldn't find where it had been, but he remembered that there had been a cemetery up there.

Scribner: He thought there was a cemetery? That would be north of--

Swent: Well, I'm not sure if it was north or not, but maybe. When you come up from Berryessa, the mine is on the right side of the road, and the house was on the left, and this was up, way on the right, up beyond the mine, on that side of the road that we were looking for it. I guess that would be more up toward the Reed.

Scribner: Well, it would be--yes, because the road--yes, to get to the Reed Mine, you'd go [sighs]--there was a fork in the road where the old stone building, the Y--do you remember the Y? A fork?

Swent: Yes.

Scribner: Okay, where the old stone building sat. And if you went to the left, that took you up over the hill towards Clear Lake, okay?

Swent: Morgan Valley.

Scribner: Morgan Valley. If you went to the right, you would go up through the mine and go past the Redington shaft, and then you would go a little bit further, and then the road that they put in that went up the hill, where they sunk the Knoxville shaft, and if you kept going straight, that would take you to the Reed Mine. But then there was a road that branched off just past where the stone building was. It went off to the right across the creek, and that's where they built the family housing and the schoolhouse, and that's the way you got over to where the smelter was, where the plant was. And then up north on that road, a little bit further, was where the Connors lived. He had a horse barn there, a little horse barn. And I don't remember any cemetery. I just don't recall any cemetery.

Swent: We didn't find it. And, of course, cemeteries get grown over pretty fast anyway.

Scribner: I don't know. It would take some exhaustive research to either prove or disprove, I would think.

Swent: Yes.

Scribner: And I don't know what the Napa County--that's in Napa County. I don't know what the Napa County records would disclose, if anybody had the inclination, even if they had the inclination to go digging.

Swent: Do you know Tony?

Scribner: No, no.

Swent: He's--oh, I can't remember what his family name was. It was one of those German families that had ranches up there. I don't remember the name. His name is Cerar. That was his father's name, but his mother's family had ranchland up--

Scribner: Where?

Swent: Well, it would be in Lake County.

Scribner: Oh, in Lake County. Okay.

Swent: I can't remember the name right now, but you would probably recognize the name. It's one of those old German families up above the Corona Mine, Twin Peaks area, around there.

Scribner: Okay. What was kind of ironic was that when we were in Knoxville the world on the other side of the hill, going towards Lake County, almost didn't exist.

Swent: It was pretty hard to get there.

Scribner: Well, there was a bumpy old narrow dusty road, and none of it was gravel; it was dirt. The very few times that we ever went to [sighs]--I think we went to Clear Lake once or twice. The rest of the time we either went to Napa or we just didn't go. But that world on that side of the hill was pretty alien because we never went there. [laughs]

Swent: Well, it was almost impossible to get there!

Scribner: It was, it was.

Swent: Yes. Well, even as recently as 1980, when Homestake was going in with the mine there, there wasn't a telephone, there wasn't electricity--

Scribner: We didn't have power for the first year we were at Knoxville. It took them a year.

Swent: Gamble put it in.

Scribner: Yes, from twelve miles, I believe, from the upper end of Berryessa up to the mines.

Swent: That was where it ended, right there.

Scribner: It was ended right there.

Swent: Beyond Knoxville there was nothing.

Scribner: Didn't they extend on up to the Reed Mine, though?

Swent: Oh, maybe.

Scribner: I think they did. I think they did.

Swent: I think you're right. But that was the end.

Scribner: But Gamble had to foot the bill for the whole enchilada. And then that first year, all the equipment was run off big huge Caterpillar diesel generator sets. All the mine machinery and everything was run off of generators.

Swent: When you were first there.

Scribner: Yes, when we were first there.

Swent: Now, how did they get the diesel fuel in?

Scribner: It was trucked in.

Swent: On that road from Berryessa?

Scribner: Yes, from Monticello.

Swent: That was quite a--

Scribner: It wasn't a bad road. It was fine in the summertime. But there was about twelve places where--well, you drove up there. You know how you cross back and forth across the creek about twelve places on those causeway things. They were called causeways. Every winter, if you get enough water going down through there, one or two of those things would wash out. They were meant to flood when you had the rains, but sometimes they'd just go and wash out.

Swent: And then you didn't go that way for a while.

Scribner: Well, you had to wait till the county came in and would put a detour around. They couldn't obviously do that while it was raining.

Swent: Yes. Now, it's still not a hundred percent sure that you're going to get where you're going in that country!

Scribner: I know.

Swent: It's amazing.

Scribner: The last time I went up there, I was kind of disappointed that they had taken down the buildings, but I understand why.

Swent: Yes, I think a lot of people felt sorry about that. But "picturesque" is one thing if you're not responsible for it. You can't always hang onto everything that's picturesque.

Scribner: Right. I understand now that Gamble sold the property. It's been sold to--the state? Was it the state?

Swent: I think they were trying to get it into that nature reserve.

Scribner: I think that's--I don't know who was telling me that. I think maybe my brother was telling me. I don't know.

Swent: Okay, so they had diesel generation at first, and then later they brought power in. Gamble did that.

Scribner: Yes.

Swent: And you said Atlas-Copco drills?

Scribner: Yes.

Swent: They were the latest word.

Scribner: That was the latest word, yes. They hadn't started using--they were still using the old iron bits. They hadn't gotten the carbide insert bits yet.

Swent: Did they sharpen them there, do you know?

Scribner: They sharpened them. They had the blacksmith shop, a whole blacksmith shop, which was a paradise when you're a kid, like we--we had the total run of the place, too. There was no place that was off limits or anything.

Swent: Before OSHA.

Scribner: This is well before OSHA. The only place we couldn't go was we could not go down the shaft. Our dad didn't mind, but Mother had a fit.

Swent: So did you go anyway once or twice?

Scribner: A couple of times, yes. We went a couple of times. But other than that, we had the complete run of the place. In Knoxville the surface mining--the open pit mining, I should say- only worked one shift, but the smelter worked twenty-four hours a day, around the clock.

Swent: I guess we ought to start with the mine. You talked about the drilling and the air-powered tuggers. And they had a hoist?

Scribner: Yes. It was electric. The shaft hoist?

Swent: Yes.

Scribner: Was an electric hoist.

Swent: And the crusher right there?

Scribner: No. The ore, when it came up out of the shaft, it was put in a bin. The car was dumped into a bin, and then it was trucked over to the smelter, and then it was dumped in another bin that had the crusher, jaw crusher.

Swent: This is cinnabar.

Scribner: Cinnabar.

Swent: You weren't getting free quick, as the old-timers--

Scribner: Sometimes, yes, you could get some free quick. That usually came--it was out of the ore that had already been roasted. At the bottom of the slag piles, where the cattle would mill around, there would be free quick.

Swent: Really?

Scribner: Yes, from the walking around on the ore that had already been roasted; they hadn't extracted all of the mercury out of it.

Swent: So you would find it in the hoofprints?

Scribner: Yes, in the hoofprint areas, where the cattle would be milling around. Because it was open range. Nothing was fenced off or anything. It was all open range. What was odd was that they

had the cattle there, and they were drinking out of the creeks, and the creeks had coloration in them from the mining.

Swent: That would be red? Iron?

Scribner: No, it would be more rusty from the open pit works. It would be a rusty looking--

Swent: Like an iron--

Scribner: Like an iron oxide more than anything else.

Swent: You weren't drinking the water from the creek. You were getting it from the stream up above.

Scribner: No, but the cattle--well, we got our water out of the spring, but we drank water out of the creeks many a time.

Swent: And the cattle were drinking it.

Scribner: And the cattle were drinking it, yes.

Swent: And you were eating the cattle.

Scribner: And we were eating the cattle, eventually.

Swent: Of course, the staining wouldn't indicate mercury.

Scribner: No, the staining was just more like a rust, more like rust. But that was interesting, though, to see the little puddles of free mercury.

Swent: Did you boys play with it?

Scribner: Oh, yes, we played with it.

Swent: It's fun to play with.

Scribner: We put it on the coins and all that.

Swent: It didn't seem to do you much harm. [laughter]

Scribner: You know, we didn't eat it. I mean, you know. I imagine if you did it for thirty years, it probably wouldn't--. But we went to the smelter, it ran it twenty-four hours a day. We used to hang around the smelter, and they would take the buckets from the condensers and pour the condensate out on these cast-iron tables and throw the lime, mix the lime in it and dried it out, and then just take a garden hoe and just hoe

it back and forth. These things had a slope to them. The mercury would just run out of the--it was like black sand. It would just run right out down to the lower corner of the table.

Swent: They were doing the hoeing by hand?

Scribner: Yes, yes.

Swent: It's a pretty standard operation, isn't that?

Scribner: Yes.

Swent: You said there was a jaw crusher. And then the smelter--how was that fired?

Scribner: That was oil-fired, rotary kiln.

Swent: Rotary. It was a horizontal--

Scribner: Yes, a standard rotary kiln. It was about, oh, forty-eight inches or so in diameter, maybe a little bigger. About fifty feet long, approximately.

Swent: Just out in the open?

Scribner: No, it was inside a building. It was inside a building. Well, put it this way: it was a roofed-over enclosure, and it had solid walls so that they could lock it up.

Swent: Was there any thought that this was a dangerous location?

Scribner: No. But you had to be careful when you were there because the kiln was quite hot, especially down towards the furnace end.

Swent: And this worked all the time.

Scribner: Except for when they--occasionally they would have to shut down to replace the brick lining in the kiln, and then that meant a period of time for it to cool down, and then they would go in and do their work, and then fire it back up again.

Swent: And then after the hoeing--let's see. The hoeing table is after the condensers.

Scribner: Yes, yes. Yes, because the fumes--the gas comes off and goes to the dust collector, and then it goes through the condensers, and then the condensate gets put on the hoeing table, and then it gets hoed, and the mercury collects and runs down to the low point and into the bottles, flasks.

Swent: Flasks. Were they shipped out, then, every now and then?

Scribner: My dad would--about twice a month they would load up and make a--they had a truck, and about twice a month they would take all the flasks and go to Sacramento. They would put them on either the *Delta King* or the *Delta Queen*, and they would get shipped down to Crockett, down to Selby, to the smelter down there.

Swent: Selby smelter.

Scribner: Yes. And then when you get done delivering the flasks, you would drive up and down Second Street looking for help [laughs].

Swent: Pick up some new workers?

Scribner: Pick up a couple of new workers, and then they would last maybe a week or two.

Swent: Turnover was pretty rapid.

Scribner: There were a few that turned over quite a bit. They were the day laborers. They just wanted to work--they were winos. They just wanted to work long enough to get a paycheck and then go to town.

Swent: I imagine--this was wartime; it was pretty hard to get workers, wasn't it?

Scribner: Yes, because everybody was working in the war industry. You know--

Swent: Shipyards.

Scribner: Shipyards, and they were paying excellent--big, big money.

Swent: Sure, you couldn't compete with that.

Scribner: It was hard to get miners.

Swent: So you and your brother had the run of the place.

Scribner: The only thing we had to watch out for was rattlesnakes. Pretty snake-y country over there.

Swent: Was it?

Scribner: Yes.

- Swent: And your mother wasn't too happy.
- Scribner: No, she didn't like it there at all. She was an Eastern city-type person. She did not like Knoxville one bit.
- Swent: Did you have extra privileges for tires and gas and things like that because of the strategic--
- Scribner: Well, we had--that was one of the things--everybody else had an "A" sticker. Because my dad had the company car, he had a "C" sticker. And then they had the truck; they had a "T" sticker for the truck. Well, they actually had two trucks.
- Swent: Because you had to be able to get back and forth.
- Scribner: Well, Dad--he always cautioned us not to brag about our situation because we were definitely better off than most of the other families there. There was one family there--they had five or six kids. They lived in this little tiny house. It was almost like Ma and Pa Kettle. They were poor. They were poor people. Even though the husband worked and made good, but they just had all these kids to feed. I used to remember somebody would make a run to Monticello, and the families would put together their grocery lists, and they would send a truck down to town, and they would come back and they would get everybody's groceries for them. This one family--I'll just never forget the amount of bread they ate. It seemed like a dozen loaves of bread every other day or something like that. Because they were poor. They just weren't as well off as we were. We were pretty fortunate.
- Swent: Do you have any idea what the wage scale was at that time? I don't suppose you would have noticed. You were too young.
- Scribner: No, I don't--I just--I don't know.
- Swent: There's probably a record of it somewhere that you could look it up.
- Scribner: Yes, I don't have any idea what the wages were.
- Swent: The superintendent's family did pretty well.
- Scribner: Well, my dad got paid by the month, and then he had the privileges, you know.
- Swent: Sure.

Scribner: We didn't even have to pay for any electricity or telephone or anything like that.

Swent: The house was provided.

Scribner: The house was given to us. But that was Gamble. Gamble was generous. Old George Gamble. He was generous.

Swent: Well, is there anything else that we ought to mention about the operation there? Do you remember any talk about people getting salivated?

Scribner: Oh, yes. The cattle. Occasionally there would be one that would get salivated, and they would lose--

Swent: The cattle! I didn't realize.

Scribner: They would lose their teeth, and they would die because they couldn't crop grass. And you would see an old skull that lost his teeth and couldn't eat any more, so he died.

Swent: That's the first I had realized it affected cattle the same way.

Scribner: Oh, yes.

Swent: I heard about people.

Scribner: But as far as people, we never had any--they had safety and first aid classes and training and stuff all the time. Mine safety. They had a little adit, up past where the stone building was that was used--it was a relief tunnel, air tunnel. They used it for training. They used it for training purposes. They would go in there and take these guys in and see if you can light an underground fire and have them put on their gas masks, breathing masks, and lead each other out and stuff like that.

And there was--that was the biggest fear because the ground was all heavily timbered because the inside was not like quartz lode mining. It was literally fractured, rotten ground.

Swent: Were there any accidents that you recall?

Scribner: Again, I can't recall. I'm sure there must have been, but I can't specifically recall any accident.

Swent: What about stealing? Did anyone try to rob the flask shipments?

Scribner: Steal mercury?! I don't recall that ever being--well, at first--they run about seventy-five pounds. What would you do with one if you stole it?

Swent: Your father didn't take any special precautions with this load?

Scribner: No.

Swent: No highway men robbing you or anything?

Scribner: No.

Swent: What about the payroll? Did he bring that in in cash?

Scribner: You know, I don't know how they did the payroll. I don't know.

Swent: Sometimes that's a little bit tricky in these places.

Scribner: Yes, I don't know how they did the payroll. See, that's one thing that I never saw or witnessed was anybody ever getting paid. I'm sure they did! [laughter]

Swent: It wasn't a big issue then. You would have heard about it.

Scribner: I don't know whether they--they must have paid them--I would guess that they paid them in cash because not everybody had access to a checking account, and the check wouldn't be any good because no bank within twenty miles or so. I don't even think--there wasn't even a bank in Monticello. You would have to go to Napa.

Swent: I imagine Cook and McKenzie--

Scribner: They all did--

Swent: The de facto bank?

Scribner: They probably could have, yes, yes.

Swent: If they let people charge.

Scribner: They let people charge, yes, yes.

Swent: That's kind of the way it worked in some of those places.

Scribner: Yes, and then they ran a post office, too.

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Swent: Was Monticello the nearest post office?

Scribner: Yes.

Swent: You had to go in there to pick up mail, too, then.

Scribner: Yes.

Swent: That was quite a ways.

Scribner: Well, I understand back when Knoxville was a township, that they had a post office, back in the 1800s. But they didn't have a post office when we were there.

Swent: It was a thriving town then.

Scribner: I guess it was, four or five hundred people or something.

You would think that they must have had a cemetery if it was that many people living there.

Swent: There must have been one.

You'll have to hunt up Tony Cerar and see what he knows.

Scribner: Where does he live?

Swent: Ah, he's hard to locate. He lives--or did--up on Geysers Road. He had a place up there. His sister lived in St. Helena, and she has died, and I think he still has that house. I don't know whether he stays--he's hard to locate.

Scribner: Oh, is he?

Swent: Yes.

Scribner: How old is he?

Swent: Eighty-five, and he's stone deaf.

Scribner: Oh, gee.

Swent: So he doesn't answer the telephone. And when his sister was alive, I would give her messages, and she would [laughs]--and you can write to him. I've got a mailing address for him. But actually to locate him isn't easy because he's kind of in between Geysers and St. Helena. The last I knew, he still had a lease on the La Jolla Mine, up on the Oakville Grade there.

Scribner: On the Oakville Grade?

Swent: Yes.

Scribner: Okay.

Swent: So he kind of checks on his mining interests and was living, actually, up on Geysers Road, in a place up there. As I say, unless he's right by the phone, he doesn't hear it when it rings. And once you get him on the phone, it's hard to talk to him because he doesn't hear very well.

Scribner: I was going to say, if he's hard of hearing, how the heck can you talk with the guy? Gee.

Swent: But he knows an awful lot about all the things going on there, and he did know Knoxville.

Okay, well, I wonder what else. What else do you want to say about all this?

Scribner: I'm about talked out. I think this is most of the talking I've done in a long time. But I'll probably think of a million other things.

Swent: Well, do make a note, will you?

Scribner: Would that be okay if I did?

Swent: Yes, we can always add things.

Scribner: I'm going to check and see if I can clarify some of those dates so there's no gap.

Swent: Well, some of these dates--surely, the state mining department has a record of when these things opened and closed.

Scribner: Oh, yes, yes.

Swent: So we don't have to--we're not responsible for that. But some of these things, like the equipment and so on--they don't always keep records of those.

Maintaining the Mine Model

Scribner: One of the things that my dad did and I always thought was kind of an interesting thing was he had to maintain the mine model.

Swent: Oh!

Scribner: Have you ever seen a mine model?

Swent: Well, I've seen present-day ones, but they're plastic.

Scribner: Well, yes, it's still the same principle, only the ones they had were glass sheets.

Swent: Glass?

Scribner: Sheets of glass.

Swent: How did that work?

Scribner: Well, if you can envision a rack, and you have a sheet of glass that's about twenty-four inches by twenty-four inches, and in this rack--there's little--you have a sheet of glass that represents different layers of the mine, and then they take and they use a colored ink and show the different workings on each of the levels.

Swent: So it's a three-dimensional model.

Scribner: It gives you almost a three-dimensional model. The other kind are wire frames, where they take and will use, oh, like an eighth-inch-square metal rod, and they'll bend it to conform to a tunnel or the shaft and assemble all this thing in a frame of some kind, to hold it. One of the most interesting ones--if you ever get a chance when you're in Grass Valley, go to the Empire Mine State Park.

Swent: I have been there.

Scribner: Okay. Well, they have the mine model in a room there.

Swent: Yes. I peeked in the window.

Scribner: Okay, but you didn't go in?

Swent: It was closed.

Scribner: Oh, okay, was it closed?

Swent: And they said, "This is where the mine model is."

Scribner: Oh, okay.

Swent: But I haven't actually seen it.

Scribner: If you go there again--they have a little five-, ten-minute tour, and they have the what-do-you-call-it people there, docents, that--some of the docents don't know nothing, but at least they're helping. And it doesn't cost the state anything [laughs].

Swent: No, they're volunteers.

Scribner: They're volunteers. It's interesting. They'll show you--that thing looks like a metallic spaghetti sculpture or something. It's just got stuff going all over the place.

Swent: And that's with the wire.

Scribner: That's with the little rods.

Swent: Metal rods.

Scribner: It's scale. It's like one inch equals eighty feet. It's huge. It shows you the extensiveness of the workings under Grass Valley.

Swent: The one that your dad had was glass plates.

Scribner: He used glass.

Swent: He had to keep that up to date, then.

Scribner: Yes, he kept his up to date. Well, that was very simple compared to--this was at Knoxville. They had the same thing at the Kenton Mine. The shaft was deeper at the Kenton Mine than it was--the shaft at Knoxville was relatively shallow; it only went down about three hundred feet, and then they stopped and decided to go to the open pit.

Swent: And you don't do a mine model of an open pit, I guess.

Scribner: No, you don't need it, no, no, no.

Swent: No. I never thought about models that way before. Were some of them wooden? It seems to me I've seen some that had this square-set little wooden things?

Scribner: I've never seen a wooden one. I've never seen a model that was wood.

Swent: No. I guess that's just replicas I've seen.

Scribner: Yes, something like a replica.

Swent: But not a real mine model. Okay. So that would have been one of his major responsibilities?

Scribner: Yes, he was the surveyor and, of course, the geologist and the assayer. He had to do all this. Didn't do much assaying at Knoxville, but he did quite a bit of assaying at Kenton, whenever there's gold. I used to watch him do his assaying and stuff, weighing out his little specimens.

Swent: You went on, then, into a different kind of engineering.

Scribner: Yes, I went on into, well, civil.

Swent: What about your brother? He's a geologist?

Scribner: No, he went into environmental health. He was in the environmental health department for Placer County until he retired recently.

Swent: Well, that's sort of engineering, I guess.

Scribner: More or less, kind of, yes, yes.

Swent: I guess because he was a friend of this geologist, I thought he was a geologist.

Scribner: No.

Swent: So nobody went on into mining engineering.

Scribner: Not per se, no, but I have been interested in mining ever since I was a little kid. In fact, on three different occasions I worked in the mines around Grass Valley.

Swent: Oh, did you?

Scribner: Yes, when I was younger.

Swent: Which mines did you work in?

Scribner: I worked in the Empire.

Swent: Did you?

Scribner: Yes.

Swent: When was that?

Scribner: Nineteen fifty-four, 1955, just before--they went on strike in 1955, and Newmont shut it down exactly one year to the day later.

Swent: That was the end of that.

Scribner: And that was the end of that.

Swent: You said you worked in another mine.

Scribner: Well, I worked in what was called the Pennsylvania shaft, but that's down the road from the Empire. It was all part of the same company.

Swent: Complex. What sort of work were you doing?

Scribner: I was a miner.

Swent: But '55 is when they closed it down.

Scribner: They went on strike in '55. What happened was the copper miners were on strike in Idaho, and a bunch of them came to Grass Valley, and they all got jobs, okay? Most of them. Well, then they started agitating the locals about more money and this and that, and they convinced them that they should go on strike; okay? I saw the handwriting on the wall in March, I guess it was, or April. I got out of there and went to work for a surveyor. And in June they went on strike. One year later, to the day, in June of 1956, Newmont shut it down, and that was it. The only reason they kept it open was to keep the mines pumped out because they're deep mines; they go down several thousand feet, and it costs a lot of money to just pump the water out of them. They mined a little bit. They got enough out of there to make ends meet, but it's all history now.

Swent: They'll never be able to pump them out again.

Scribner: Oh, they'll never--forget it!

Swent: Probably a lot of gold down there still.

Scribner: There's probably more gold than--nobody will ever know. It's too costly to get it out. And with the environmental laws the way they are, it would be just five times the cost, even if you wanted to do it.

Swent: So the miners were without a job, then.

Scribner: They just basically fouled their nest.

Swent: It's sad, isn't it?

Scribner: Yes.

Swent: Well, there's not much mining going on now anywhere.

Scribner: No. Well, there's a few guys that are doing small-scale type stuff.

Swent: Nevada still has mines.

Scribner: I think what's his name?--Miller. He still--he's up there at the Sixteen-to-One.

Swent: He's still going?

Scribner: I'm pretty sure, unless he's--I think they mostly turned into an educational/tourist attraction.

Swent: I think so. I think he's selling some specimens.

Scribner: And still selling--they're getting specimens out of it.

Swent: Yes. But not much in the Sierra.

Scribner: Not a production type, not production mining at all.

Swent: No. The big mining now that's going on is sand and gravel.

Scribner: Well, that's it. And that's--you go over here by Livermore, where I live, and the sand and gravel operations--they've been going on for years and years and years. People are starting to agitate to shut them down.

Swent: Yes. The same people that are talking about the housing shortage!

Scribner: Yes, the same people that are talking about the housing shortage, yes!

Swent: [laughs] The cost of housing.

Scribner: Yes, yes.

Where do you live?

Swent: I live in Piedmont, right over there.

Scribner: Oh, okay.

Swent: No, not many people put that together.

Scribner: Oh, the two are very definitely--

Swent: The farther you have to ship your concrete, the more expensive your house gets.

Scribner: That's right.

Swent: Well, that's a whole other topic.

Scribner: [laughs]

Swent: I guess we've pretty well done the Knoxville.

Scribner: We pretty well beat it to death! [laughs]

Swent: I'm so glad that we finally connected, because I have not gotten anybody who really had lived there, and I think it's wonderful to get that story.

Were there any other names that you remember? We mentioned Conners and McKenzies. You mentioned that your father had one--

Scribner: Oh, Glenn Truitt, yes. Glenn Truitt. He's dead. Glenn has passed on.

Swent: George Gamble and Vernon Padgett.

Scribner: Padgett's dead.

Swent: Who was the teacher? Do you remember the teachers' names?

Scribner: Oh, we had [pauses]--we had two that I can remember, and possibly we might have had another one.

Swent: Unmarried ladies, no doubt.

Scribner: No. One was [sighs]--she was a younger person. Her name was Betty Frazee. The other one was an old woman, and I think her husband was dead, and her name was Lucy Hammond. She was old. And we gave her [sighs]--we gave her a very bad time.

Swent: [laughs] Did you learn anything in spite of it all?

Scribner: I must have because I skipped a grade! Yes, I did. It's interesting, because they're doing the math cards for the older kids, and you've got to go along and do it, too, because she's not going to do it twice, right? So you kind of get moved along. We got moved along.

Swent: Yes. Okay, well, I think that covers it, Pete. If there's any more that you think of, you can certainly add more later. This has been fun for me. I hope you've enjoyed it.

Scribner: Yes, I've enjoyed it.

Swent: All right. Well, thanks very much, Pete.

Scribner: Okay. Oh, I've got to turn that [parking] pass back in.

Swent: I'll run down and get it so that you can just drive by.

Scribner: Would you mind?

Swent: No, not at all. I'll be glad to do that.

Scribner: Okay.

Swent: You drive by the door. Let me just get the key so I can get back in here. Then I'll pick it up and drop it off for you.

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A GENERAL McLAUGHLIN MINE INFORMATION

An overview of
Homestake Mining Co.
McLaughlin Mine and Mill

Written, edited and compiled
By Richard Mason

Editor's note: Richard Mason, an 18-year veteran journalist and editor, covered the development of the McLaughlin Mine and Mill in Lake, Napa and Yolo counties. Mason was a reporter, assistant editor and managing editor of The Clear Lake Observer-American in Clearlake, Calif., from 1977 through 1988.

Skepticism was an initial reaction of many in Lake County when Homestake Mining Co. of San Francisco announced a major gold discovery at an old mercury mine east of Lower Lake in 1980. As a journalist and resident of Lower Lake my interest was more personal and professional. First, I wanted to know everything about HMC and the gold mining and gold recovery process so I could report on the project in the most intelligent and comprehensive manner. Second, I wanted to be sure the project would go forward with the least disruption to the environment and rural lifestyle. At the same time I wanted the project to boost the economy of the south county through employment and other spending during construction. Lake County, a retirement community and resort area, lacks well-paying jobs. A major industrial operation such as a gold mine would provide a wealth of good jobs with excellent fringe benefits.

Lake County's other experience with a major industrial undertaking -- The Geysers geothermal project of Lake and Sonoma counties proved a mixed blessing regarding employment. Although Lake County benefited through enhanced property tax revenue and well-paying jobs at the few plants in its jurisdiction, most of the employment went to employees of out-of-county unions. Some of the union workers became Lake County residents and contributed to the local economy, but there was no move by the developers and

unions to train and apprentice Lake County workers for well-paying jobs at The Geysers.

As a reporter my first job was to research HMC and the project as it progressed through the preliminary planning stages and permitting process. The more I looked into the company, the more I became convinced about the positive impacts of the mine. The company had a good reputation. One of the first agencies I contacted was the federal Bureau of Mines in Reno, Nev. HMC was going to use cyanide in the gold recovery process and I was curious about any environmental and health effects. Cyanide is a highly toxic chemical. I wanted to know more about the process and wanted to be sure no significant environmental degradation would occur. The agency official said cyanide has been used in precious metal recovery for many years and is handled very carefully because of its potentially harmful characteristics. HMC pioneered this process at its flagship gold mine in Lead, S.Dak., in the early part of this century and never experienced any health problems. In fact, no fatalities have been reported in the U.S. mining industry because of cyanide. During this conversation the geologist became interested in the mine project and wanted to know what company was developing the mine. When I said HMC, he remarked that HMC has an excellent reputation. As I recall, although I never used this information in an article, his response was "Homestake is a good company." Similar conversations with others including the city clerk in Lead, S.Dak., where HMC has mined gold since 1876, convinced me that the company would be

positive for Lake County. Through my efforts the newspaper began to support the project.

When HMC unveiled the project officially at a hearing in Napa County (the lead agency for the three-county project), Jack Thompson, then resident general manager of the McLaughlin Mine, and other company officials, stressed their commitment to hire locally during the construction for various reasons including easing impacts on housing, traffic, socioeconomics, etc. The major access to the project would be Morgan Valley Road from Lower Lake, and Lake County became the major beneficiary of employment and increased economic activity in the south county.

HMC's decision to use local labor and firms, as much as possible, was restated many times as the project went through the permitting process. Lake County mandated local hiring and training programs in its use permit for thhe project.

During construction, the project proved a boon to the local economy and many businesses and firms in Lake County benefited from increased spending and other economic activity generated by HMC, its main subcontractors, and the hundreds of workers employed at the project.

Homestake Mining Co. EIR certified by Napa commissioners

by Doug Ernst
Special to the Observer

NAPA — On a unanimous vote Napa County planning commissioners certified the final Environmental Impact Report on Homestake Mining Company's proposed Knoxville gold mine.

Approval by the five-member commission means Homestake may begin to acquire the necessary permits to prepare the mine site at the junction of Napa, Yolo and Lake counties for future operations.

Commissioners insisted, however, that certification of the EIR is not the same thing as approving the 25-year project, which is designed to extract and process 3.2 million ounces of gold.

"This EIR is not a permit in any way, shape or form, for Homestake to proceed" with operations, said Commissioner Robert Lewis.

"During the next steps — during use permit hearings — our attitude toward the project will be neutral," echoed Commission Chairman Jay Corley.

Each of the three counties affected by the mining operations will now schedule use permit hearings in which the actual merits of mine operations will be determined.

Each county will likely impose strict conditions upon Homestake to closely monitor air and water quality during the life of the project.

One of the major concerns expressed by Lake County residents was the issue of local hiring. At public meetings in Lake County, Homestake officials have stressed their desire to train workers for the mine operation which will employ as many as 250. About 150 of these jobs could be filled locally, Homestake representatives have stated.

In other interviews with president, chief executive officer and chairman of the board Harry Conger, he has stated that Homestake is committed to local hiring and is looking at ways to implement training to assist in local hiring.

At one public meeting before the Lake County Planning Commission, Homestake's vice president in charge of operations, Bill Humphreys, went on record indicating that next to price, the utilization of local contractors will be a criteria for the awarding of contracts for constructing the mine and mill. An estimated 700 to 800 workers will be needed for the construction project.

In response to rumors that the construction bids have already been finalized with out of state firms, Rex Guinivere, Homestake's vice president for engineering stated, "No approvals have been made. We have just received the returns on the bids and it won't be until the end of next week before an evaluation can be made."

He pointed out that awards of contracts would be made contingent upon receiving the necessary permits and variances from the three counties.

In addition, a host of state and federal agencies will likely impose similar requirements on Homestake.

Homestake already has signed an agreement with the Solano Irrigation District that holds the mining company responsible for any reduction in water quality caused by mine operations.

The 50-year agreement, effective immediately, allows the SID to work with all regulatory agencies setting terms and conditions for mining operations.

It sets forth minimum standards for water quality monitoring and allows SID to inspect monitoring devices and audit monitoring data.

The 22-page document requires Homestake to take certain measures in the event of a chemical spill in project area waters.

Any violation of the agreement by Homestake could result in a court-ordered restraining order halting all mining operations.

The agreement was authorized Tuesday by Homestake Vice President and Corporate Counsel William G.

Langston and by the Solano Irrigation District Board of Directors.

SID Secretary-Manager Brice Bledsoe told planning commissioners the agreement is designed to protect the water quality of Putah Creek and Lake Berryessa.

The SID uses Lake Berryessa water to irrigate some 60,000 Solano County acres and to provide domestic water to several Solano County cities.

In addition, Lake Berryessa serves as water supply for American Canyon and Lake Berryessa residents and periodically for City of Napa residents.

"After several weeks of independent analysis, we do agree that the project EIR as proposed, with monitoring, is adequate as far as water quality consequences go," Bledsoe told commissioners.

The two-volume, four-inch thick final EIR, prepared by Environmental Science of Berkeley at a cost to Homestake of \$236,158 addressed 679 comments from the public during a lengthy hearing process involving dozens of public meetings in Lake, Yolo and Napa counties.

Napa County was selected early in the process as the lead agency and responsible for preparation of the EIR.

Now that the EIR has been certified, each county has the power to stop the project by withholding use permits unless specific conditions are met.

In Lake County, conditions will likely center around prepayment of fees to mitigate the impact of new workers coming to Lake County to work for the mine and live. The influx will create a demand on local school, water and sewer services.

In Yolo County, conditions undoubtedly will involve strict enforcement of air and water quality monitoring. Capay Valley farmers have been particularly vocal in demanding full monitoring of airborne particles thrust into the air by the mine project.



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LAKE COUNTY collapse of Calif Growers (CalCan some local pear members of the co find alternate ma: CalCan filed for rly under Chapter cy laws.

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CLEARLAKE city attorney, Ke forward to his Wilson feels his

Judge dismisses lawsuit brought against supervisor Howard Day

LAKE COUNTY — A lawsuit initiated against District One Supervisor

March, 1982.

Day had alleged the reasons given on

The Fair Political Practices Commission after an investigation completely

Mine called safe by state official

by Richard Mason

LAKE COUNTY.—Allegations of unsafe working conditions were made last week by labor organizer Mark Steckbart and four laid off workers of McLaughlin Contractors, one of Homestake Mining Company's (HMC) prime contractors and the McLaughlin Gold Project.

The five appeared at a hearing on construction water permits before the state Department of Water Resources accompanied by members of local television and print media. The allegations also were on wire service news.

Operating Engineers Union Local 3's Steckbart has been vocal at public hearings here, critical of HMC's hiring and socio-economic plans.

He also organized a "Homestake Jobs Committee" that attempted to in-

volve itself in monitoring of local hiring and training when those use permits were before the Lake County Planning Commission.

The allegations were aired statewide, which prompted Senior Safety Engineer, State of California, Department of Industrial Safety and Health, Mining and Tunneling Unit Stan D. Rhyu (pronounced Roo) to visit the job sites in Lake and Napa Counties.

"When we inspect any job site, we cannot call first. We just drop in without announcement," said Rhyu.

He described the operation as one of the safest in the state. "No safety citations have been issued to HMC or any of its subcontractors," he noted.

"It's one of the best places I've seen. A real clean operation," Rhyu said.

Photo here by back page

8—Clear Lake Observer, Thursday, February 23, 1984

MINE SAFETY

He explained that a surface operation is not required to have a full time safety engineer. It's mandatory in underground mining, according to the state inspector.

He commented that there are several full time safety engineers associated with the three subcontractors as well as with the firm of Davy McKee, construction manager for the multi-million

dollar gold project.

He pointed out that a pre-job conference discusses all the possible hazards that might be encountered while construction is underway. "This is not mandatory but HMC arranged the meeting between our agency and the main contractors," said Rhyu.

Construction safety is not necessarily altruism on the part of contractors. Charles Cross, safety engineer with Alexander and Alexander in Oakland, explained, "A company through safety programs can lower workman's compensation insurance costs by 50 percent."

Alexander and Alexander is the second largest brokerage house in the U.S. for industrial construction type

Continued from
page one

coverage according to Cross.

If the cost of labor over the construction life of the project is \$50 million the premium for workmen's compensation coverage will range between 5 and 10 percent of the labor cost, said Cross.

"Workmen's compensation claims will be paid on the cost plus basis. The carrier will charge an additional 15 to 20 percent for servicing the claim. If at the end of a project, \$1 million of compensation is paid plus \$200,000 for the carrier, the contractor will be rebated \$3.8 million. It's in the company's interest to keep claims as low as possible through an ongoing safety program," he said.

Homestake benefits local economy

BY Richard Mason

LAKE COUNTY — During Thursday's county planning commission hearing on Homestake Mining Company's (HMC) application for the reconstruction and realignment of Morgan Valley Road several local businessmen testified about the economic advantages of the project.

Their testimony refuted allegations made by Operating Engineers Local 3 organizer Mark Steckbart about HMC's and its prime contractors intention to hire local workers and use local contractors in building the \$250 million project planned for the tri-county area of Lake, Yolo and Napa counties.

Local 3 has formed a "Homestake Jobs Committee" and has accused HMC of not having any commitment to local hiring and training.

However many people who attended the hearing had a completely different opinion about the San Francisco based mining company.

Jerry Gilbert of Gilbert Security of Lucerne and Lakeport pointed out that he was awarded the security contract by Davy-McKee, the construction manager for the project. "This means that I will have to add from 18 to 36 guards to my staff and all these people will be local," the retired California Highway Patrol officer said.

Cliff Ruzicka of Ruzicka Engineering in Lakeport noted that his firm has been doing surveying for McLaughlin Constructors, the Salt Lake City construction outfit who is in charge of the Morgan Valley Road reconstruction.

Lake County Transit manager Ethyl Evans disclosed that a letter of intent had been signed between her company and Davy-McKee. "Lake County Transit will transport all the workers to the job site. We have eight employees and the contract could mean that we would have to hire an additional 12 drivers," she said.

Davy-McKee's Art Dunn updated the commission on their training program explaining, "We have secured on a lease basis a hangar at Pearce Field for training purposes and have placed ads for instructors. Bill Hecomovich, (Lake County's director of Yuba College) will be setting up a curriculum for welders and industrial carpenters."

Union Oil jobber Jim Jonas who will supply lubricating oil and fuel for the project said that he employs seven local people and more will be hired as the program develops.

Whitman Ford of Lakeport has supplied 15 new pickup trucks to McLaughlin Constructors and five more are on order.

McLaughlin Constructors has established a personnel office in Lower Lake and has interviewed more than

500 job seekers, project manager Sandy Sanders said Tuesday.

According to Sanders, 39 people have been hired and only six have been non-local. He explained that McLaughlin has brought in 13 supervisory personnel from outside the

a few difficulties in moving equipment through Lower Lake on Morgan Valley Road. On Friday, a truck driver unfamiliar with the road tipped a 30 ton Pettibone hydracane off of its trailer in the vicinity of the White Hill near Soda Creek five miles east of Lower

Lake.

According to Sanders, now are required to call McLaughlin office in escorts are provided to staging areas.



Accidents can happen to anyone. McLaughlin Constructors who will be rebuilding the Morgan Valley Road to the McLaughlin gold mine east of Lower Lake had one of their cranes dumped in a ditch Friday by a judged a curve on the White Hill near Soda Creek. The company has mandated more stringent regulations to reoccurrences.

county.

Argee Construction Company, another prime contractor, has established an office in Clearlake at 15090 Olympic Drive, in the Four Corners neighborhood, and is soliciting applications for industrial carpenters and welders.

More than 200 people will be hired by McLaughlin for the road reconstruction which will begin on Saturday. "Realistically, the construction will really start the day after Labor Day," Sanders declared.

He cautioned residents of Morgan Valley who use the road to be aware of the heavy equipment that will be on the road starting next week. "If you see a scout car, proceed with caution and find a wide spot in the road," the tall heavy set construction expert said.

He pointed out that all loads will be escorted to the job site for safety. There will be delays for residents as construction gears up, according to Sanders, and there will be flaggers to control traffic.

Sanders noted that there have been

Lower Lake to se

LOWER LAKE — Davy-McKee, construction manager for Homestake Mining Company's (HMC) McLaughlin gold project, has agreed to buy water for construction purposes from the Lower Lake Water District.

The first purchase order from Davy-McKee to the district calls for buying a minimum of 100,000 gallons of water and a maximum of 300,000 gallons a day.

The district will receive 90 cents a 100 cubic feet (750 gallons) which is the current rate for non-district users.

Rex Guinivere, vice president of engineering for HMC, said preliminary draw down studies indicate that the aquifer has sufficient water to provide 800 to 1,500 gallons per minute (GPM) of water.

He noted that at draw rates of 600

gpm, there is an response or bounce well.

The initial proposal to supply the existing standpipes Road but the more ambitious plan water for the project. HMC is also in the process of making an agreement which will increase water district.

The San Francisco company proposes additional wells and in gallon water tank capacity.

The \$500,000 pipeline to the mill Lower Lake on Mc

464

Gold turns doughnuts into dollars

LOWER LAKE ECONOMY BOOMS

LOWER LAKE — After three years of talk and planning the Homestake Mining Company's (HMC) McLaughlin gold mine east of here is on the verge of construction. Lower Lake has taken on the air of a boom town. The place is humming with activity, parking lots are full and traffic has increased. People stop in amazement to view the giant pieces of construction equipment that move down Main Street to Morgan Valley Road and onto the mine and mill site in the area where Lake, Yolo, and Napa counties meet.

On Aug. 25 approval was given to reconstruct and realign Morgan Valley Road, major access to the \$250 million project. Road construction was started last week and work on the actual mine and mill facility should begin soon, pending approval by the Lake County Planning Commission of the specific plans of development during Thursday's meeting.

Along with the excitement that a major construction project generates, the otherwise moribund business economy has been given a giant shot in the arm, according to many local business people.

Bob and Dottie Orth think the mine project is terrific and promises a great future for Lower Lake. The Orths opened the Big O Doughnut Shoppe in July several weeks before HMC rented space in the same building. "Things didn't really start booming until McLaughlin Constructors opened their employment office in the building," Bob said.

McLaughlin is one of the prime contractors for the project and will be responsible for the Morgan Valley Road reconstruction.

As of this week more than 800 employment applications were received and the Orth's business has taken off. "I expected to be here at least six months before turning a profit, but now with the construction office next door, everything is going gung ho!" he said.

They believe the mine development is good for the local economy pointing out that since they opened, they have hired six persons to keep up with their expanding business.

Another factor favorable to their continued prosperity is the location of the park and ride facility in relation to their business. The 600-space parking lot is virtually next door.

HMC will require its employees to use this facility and will bus the workers to the mine and mill during operation of the mineral extraction facility.

McLaughlin already is busing its workers to the site. Orth said, "We start running at 5 a.m. and the buses leave at around six o'clock. We are selling more than 400 cups of coffee a day."

The former cabinet maker and glazier said he had always wanted a doughnut shop. "It has been one of my ambitions for a long time." Doughnuts are made fresh daily at the shop. Besides doughnuts, the shop sells breakfast and lunch.

Orth has encountered no problems with the construction workers pointing out that they are all "pretty decent. I am fortunate to have McLaughlin and HMC as neighbors and am really astounded by what is happening."

Jeannie Allen sees the mine as a positive influence. The businesswoman owns the property and buildings where the mining, construction and doughnut shop are located.

"I didn't expect to lease all the space so quickly," she declared. Although surprised by the mine she has always believed in the growth of Lower Lake and Lake County.

"So far everything done by HMC has been fair to the people of Lake County with regard to hiring and it is good that local people have been hired," Allen noted.

From the beginning when the gold discovery was

first announced HMC has been committed to the concept of local hiring.

According to company officials, local hiring records were the second most important factor, after price, in consideration of bids submitted by contractors. According to McLaughlin official Dale Frisch, 78 persons have been hired and 90 percent of them are local.

Roy Long believes the mine will cause a business boom in Lower Lake.

He said that in anticipation of this boom his business has extended its hours of operations. According to Long, owner of the Silver Grill Restaurant in the Silver Dollar Plaza, business will increase once construction work goes into full time operation.

Mechanic Ron Dover at the Union 76 station in Lower Lake sees the project as benefiting the whole south county area. "It will be good for the whole community." According to Dover, the station is selling a lot of fuel to the employees.

The presence of big money in the community is very impressive. The counterman at the NAPA parts store in Lower Lake said, "They came in here and bought \$600 worth of heater hose and didn't blink an eye!" The clerk said McLaughlin Constructors is already one of his better customers.

The giant Salt Lake City based construction outfit is using the nine-acre field at Highway 53 and Kugelman Street as a staging area for their equipment. This lot will be the future park and ride facility for the project.

Equipment has been moved from other completed projects and minor repairs and alterations must be done before the gear is moved out to the Morgan Valley site.

Some businesses here are ones that traditionally boom in a mining camp. The Five Brothers Bar on Main Street is doing great, according to bartender Karen Slatter. "It's great and we quit hearing complaints since they started local hiring."

The bar also caters meals for the management staff of McLaughlin Constructors.

Even businesses that one does not associate with mining have reported increases in activity since HMC has come into the area.

Cindy Hansen, owner of the Hairloom, says she cuts the hair of several mine management personnel and employees.

Another store owner, Carl Wilbur of Ace-Hi Deli fame, said he hasn't noticed much of an increase in his business. According to him, the project will be good for the local economy but hasn't helped his business yet.

Union Oil Jobber Jim Jonas has been supplying HMC with lubricating oils and fuels during the preliminary development of the project. According to HMC Jonas will continue to supply fuel during construction and operation of the mine and mill.

Clearlake Observer.

Thursday, September 8, 1993

An isolated mountain valley will never be the

by Richard Mason
MORGAN VALLEY — When Morgan Valley Rancher Jack Landman moved to town recently it marked the end of an era. Landman is a third generation descendant of one of the original pioneers in the area who moved to the valley in the 1870s. He and his brother Raymond are also the sole remaining offspring of the original pioneers to this remote mountain valley east of Lower Lake who continued to make their home and ranch there, into the 1980s.

The announcement of the discovery of a major gold deposit in Napa and Yolo counties by Homestake Mining Company (HMC) and plans for con-

struction of a gold recovery plant in Morgan Valley will leave its mark on the rural lifestyle of the valley.

HMC, as part of the development of the mine and mill, is underwriting the cost of reconstructing Morgan Valley Road, and bringing electric, telephone and water utilities to the valley. HMC says the water pipeline will be temporary and used only for construction purposes.

Landman said, "The valley started changing 10 to 15 years ago when the big ranches were subdivided and split up. We knew ranching was on its way out. It just hasn't been profitable."

Elton Lee, who lived in the valley as a small boy, points out that Morgan

Valley hasn't changed since it was homesteaded in 1854 by Charles Morgan.

"There is no electricity and the Morgan Valley Road has been there for more than 100 years. When I lived there we came to town in a horse and buggy, maybe two or three times a month," Lee remembered.

Landman recalls all the original pioneer families. He attended Morgan Valley Grammar School in 1925, riding to school on a donkey.

The one room country schoolhouse on the north slope of Orizzly Peak is no longer there, having been razed years ago.

Jack's wife Barbara remembered

how peaceful it was living in the white farmhouse on Reiff Road under giant 100-year-old elm trees. "There was always a breeze," she recalls.

The Landman ranch has been sold to Bill Wilder, owner of the One Shot mercury mine where HMC discovered an ore body estimated to contain 3.2 million ounces of gold.

Raymond, Jack's brother, still lives on the ranch and sees after the cattle.

Barbara describes Jack's roots as deep and says he has to be able to go back to visit the land of his parents and grandparents. She is ambivalent about the project. "It's exciting, but it's also sort of sad."

A younger generation homesteader who came to the valley a few years ago and now lives in Lower Lake had the same mixed feelings about the development.

"It's good for the community but it's sort of sad. The valley used to be so quiet. It's sad to see it change," Ron Dover said.

But other residents are looking forward to a new road, electricity and phones. Charlotte Griswold-Tergis, who lives with son Luke in the Rocky Creek area of Morgan Valley, declared, "I don't need another winter like last winter. I had to get up earlier and earlier to get Luke to school." She was referring to the abysmal conditions of Rocky Creek and Morgan Valley roads.

HMC through its contractors established a job-training program at Yuba Community College's Lake County satellite campus. Many local workers received training in the construction trades needed to build the \$280 million mine and mill project. HMC provided funding for a college building that was dedicated May 1985. Through this training program HMC was able to achieve a local hiring goal 56.6 percent, according to the Lake County Planning Commission in December 1985.

Lake County planning official John Graham lauded the project, saying HMC was cooperative in many ways in mitigating impacts from the project. During peak construction period more than 1,400 were employed by HMC and its main subcontractors. In contrast, contractors and labor unions at The Geysers never were required to develop local hiring plans or meet local hiring goals as conditions for use permits.

Planners laud gold mine as good neighbor

LAKE COUNTY — County planners recognized Homestake Mining Co.(HMC) at Thursday's planning commission meeting for its local hiring procedures during construction and start up of its \$280 million McLaughlin Gold Mine.

"HMC was cooperative in both agreeing to and suggesting measures to mitigate identified impacts. The specific plan was designed as insurance in the event that significant unanticipated impacts occurred after the permitting process was completed.

"The success of Homestake's local hiring program reduced all anticipated impacts resulting from employee and population growth and this success coupled with the roads, schools, fire, water, traffic, bussing, and property tax contributions by Homestake and their active involvement in community affairs have made the introduction of this large project into the local economy and community one of the highlights of Lake County's prosperous growth of the 1980s," stated John Graham.

As a use permit condition, HMC agreed to a local hiring goal of 50 percent. Graham stated that current hiring is 56.6 percent from the local area.

The commission will not require HMC to submit any more reports on local hiring. Staff also recommended that no further mitigation measures be requested from Homestake.

Construction on the gold mine began in September 1983 and the first gold bar was poured in March of 1985. During peak construction more than 1400 were at work at the mine and mill in Lake, Yolo and Napa counties.

LAKE COUNTY — Representatives of senior centers came from all directions of Lake and Mendocino counties to congregate in Boonville at the

Anderson Valley Senior Center for the June meeting of the Advisory Council of the Area Agency on Aging.

In the morning, directors of the

senior centers met together and shared common problems of reporting and budget planning. A lively discussion item of this meeting was revenue

sharing.

Other representatives met together to study legislation on the state and federal levels which affect the lives of seniors.

"The goal is to hire at least 50 percent local labor"

Yuba/Homestake training program highly successful

LAKE COUNTY — A training program at Yuba College was the object of scrutiny last week by federal, state and local officials.

The delegation was given a tour of the \$250 million gold mine and mineral extraction facility, now under construction east of Lower Lake, by representatives of the firm of Davy McKee, San Leandro, construction managers for Homestake Mining Company, San Francisco, which is responsible for the training program.

The program was initiated last September to enable local residents to acquire construction skills needed by contractors at the gold project.

The program was started to aid and meet its goal and commitment to hire at least 50 percent local labor at the project.

The delegation visited the Pearce Field and of Yuba College where several classes of locals who are economically disadvantaged have been trained to work at the project.

Local Job Training Partnership Act Manager Jeff Lucas explained, "The delegation, composed of members of the local Private Industry Council, state Employment Development Department and JTPA visited the cam-

pus in Clearlake, followed by a tour of the gold mine.

"They were really impressed. Our program is the most successful in the area."

"Of the 67 students that have graduated from the training program, 62 are employed at the project," Lucas said.

Homestake also was instrumental in aiding Yuba financially, to build the new vocational education building at the center's campus in Clearlake.

Now in the planning stages, the school will be able to offer students instruction in a wide wide of vocational construction skills.

The company has pledged financial assistance and a new building will soon be under construction, Yuba College Lake County Center Director Bill Hecomovich said.

The delegation visited the mine site in Napa and Yuba counties, now being cleared, in preparation of gold mining in 1985, the water dam in Yolo County, now under construction on Davis Creek, and the process gold recovery plant, now being built in Lake County.

Lucas noted the delegation was "100 percent positive and appreciative" about the development and the training programs.

The training program focuses on trades needed by Homestake's contractors and teaches welding, electrical and industrial skills.

Off-roading in remote area caused death

BEAR CREEK, MENDOCINO NATIONAL FOREST — Jerry Phillip Noe, 37, of Santa Rosa, was killed Sunday when he was thrown from his vehicle which then rolled over on him, according to the California Highway Patrol.

Noe and a 36-year-old companion were off-roading in a 1984 Jeep when the 2:15 p.m. accident happened.

The patrol said the Jeep was in an area not designated for off-road activity. "The area was too steep and not suitable" for any vehicle, an investigating officer said.

The passenger, Kenneth Settle, was secured in the vehicle by a seat belt and was reported to have shoulder injuries. He was taken to Lakeside Hospital in Lakeport. Noe was not using a seat belt and was ejected when the vehicle rolled down the steep slope.

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Job Training Center a success

CLEARLAKE — The Yuba College Job Training Center, which celebrates its first birthday this month, has been deemed an unqualified success by everyone concerned and involved with the project. Formed at the request of the contractors involved in the Homestake - McLaughlin Gold Mine Project, the center has trained and graduated over 100 Lake County residents, most of whom were employed at the Homestake Project, and the majority of whom are still involved with the operation.

"We feel that the center has not only trained the participants for gainful employment, but also has had a marked effect on the unemployment rate and welfare rolls of the county," said Jeff Lucas, county coordinator for the Joint Training Partnership Act which was instrumental in working with Yuba College to bring the center into operation.

Bill Heconomovich, Dean of the Lake County Center, stated, "Everything moved into place so quickly and efficiently that it astounded most of the people that were involved." Plans for the center began in July, 1983, when Homestake announced the names of the contractors who would be working on the huge project. The contractors, Yuba College, and JTPA held organizational committees and in less than two months, the first classes were being held in a former hanger at Pearce Field.

During the past year, men and women have been trained in the areas of millwright, concrete carpentry, welding, and electrical techniques. During the training periods, classes performed various tasks for different governmental agencies in the lower lakeshore area. Working with the Lakeshore Fire Department, they were largely responsible for the large amount of concrete work needed at the new fire station in the Burns Valley area. They also worked with representatives of Lower Lake High School in pouring sidewalks, slabs, etc., at the high school site. Work was also done at the Lake County Center of Yuba College on necessary projects. The excellent quality of workmanship displayed on these projects has drawn acclaim from the various organizations involved.

"There are so many bouquets to pass around that it's hard to pinpoint some without leaving out others who were instrumental in the success of the program," said Heconomovich. He and Lucas pointed out such individuals and organizations as: Jack Thompson and the entire Homestake Company; Klaus Thiel and Tim Hawthorne of Davy-McKee, project manager for the mine operation; The Industrial Company

(ITIC) of Steamboat Springs, Colorado, their Project Manager Ray Davis and their Personnel Manager Don Silva, who ram-rodged the project and enabled the welding program to go into effect by bringing in portable welders from their operation in Idaho; Ted Jones of Canyon Valley Electric (CVE), who coordinated the electrical training program; McLaughlin Constructors; and the ARGE Corporation contributed vital encouragement and assistance. The Private Industry Council (PIC) and JTPA furnished equipment and financial backing. "Without the help and encouragement of all these companies and people and many others as well, the program would never have gotten off the ground," said Heconomovich.

Currently, Yuba College, JTPA, Homestake, and Davy-McKee are working on finalizing the plans for a permanent vocational skills building to be constructed on the campus of the Lake County Center of Yuba College. This project will be completed hopefully by the beginning of the spring semester in February. In addition, Homestake is working to present new classes and training that will be required for their permanent employee force of nearly 300 people when the plant opens in 1985. "We've had a lot of fun and a lot of success in this project in the past, and we can see a definite need for continued training in the foreseeable future," said Lucas.

For more information on the center, call Yuba College at 994-9447.

You're invited to a Curtis Custom OPEN HOUSE



WHEN: Saturday, Oct. 6, 1984, 1-5 p.m.

WHERE: Kelseyville, CA

DIRECTIONS: From Soda Bay Rd. (Near Konocki Harbor Inn) turn onto Riviera West Dr. (Riviera W. Estates). Go to top of hill turn right on Broadview then right on Crestwood — go down hill to 3572 Crestwood

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Training center groundbreaking

Groundbreaking on the new vocational training center at Yuba College was held last week. The project is a joint venture between Homestake Mining Company, Davy McKee Corporation, other contractors at the McLaughlin Gold Project and the college. Shown from left are Yuba College President/Superintendent, Dr. Patricia Wirth, Homestake Mining Company manager of plant design and construction, John Ransone, Yuba College Lake County Center Director Bill Hecomovich and Davy McKee Corporation environmental manager, Paul Morgan.

New vocational/educational building dedicated at Yuba

CLEARLAKE — Yuba College officials, Homestake Mining Co. (HMC) executives, construction company representatives and members of the interested public gathered at the satellite campus in Clearlake May 31 for an official ribbon cutting and dedication of the new industrial education/vocational arts building.

The new building is a joint venture between the college, Jobs Training Partnership Act (JTPA), HMC, and the companies hired to build the

HMC McLaughlin gold mine now in production east of Lower Lake.

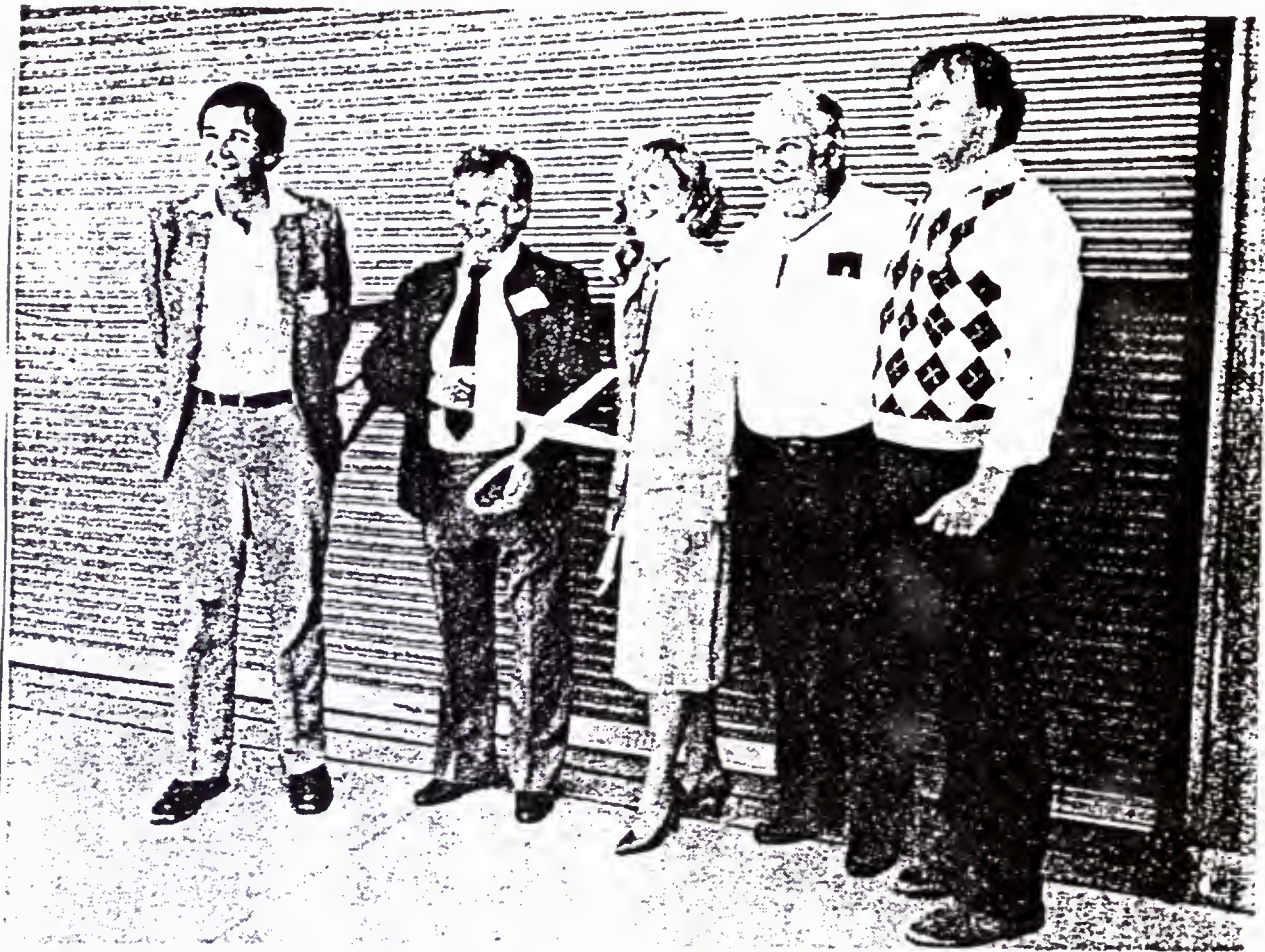
HMC Resident General Manager Jack Thompson, Yuba President/Superintendent Patricia Wirth, Davy McKee project manager Klaus Thiel and Yuba College Lake County Center Director Bill Hecomovich helped cut the ribbon on the new building prior to a guided tour of the facility.

The building is an outgrowth of the Yuba College, JTPA jobs training program that was started in September 1983 to teach construction skills to local workers. One use permit condition stipulated a 50 percent local hire rate at the gold mine construction project.

To meet this goal, training courses were established on a temporary basis at a hangar at Pearce Field. Locals were trained in industrial carpentry, electricity and millwrighting which enabled them to go to work at the gold project.

Dr. Wirth gave the main presentation and keynote speech thanking the many different companies and individuals whose work made the new building a reality. It was pointed out that the building and equipment would have cost almost \$400,000 if it was contracted out for construction. HMC, Davy McKee, Hunter Land Surveying, SRK, Fitzgerald Hazlit, TIC, Canyon Valley Electric Co., Stan Collins Construction, The Argee Corporation, McLaughlin Constructors and Mobile Concrete all volunteered time, labor and materials for the new building.

Yuba College provided about \$90,000 and JTPA bought equipment and shop tools. Courses will be offered in welding, electricity, blueprint reading and surveying. Other vocational courses will also be offered.



The new Yuba College vocational arts building was dedicated recently. The classroom and shop building, a joint venture by the college, state and federal job training agencies, contractors at the McLaughlin gold mine and Homestake Mining Company was completed and students will be receiving instruction in various trades next term. Shown from left are HMC McLaughlin Gold Mine resident general manager Jack Thompson, Davy McKee Corp. McLaughlin Gold Mine project engineer Klaus Thiel, Yuba College President/Superintendent Dr. Patricia Wirth, Yuba College Lake County Center Director Bill Hecomovich and local manager of the Jobs Training Partnership Act Jeff Lucas.

Clear Lake Observer, Thursday, June 13, 1985

Sept 15, 1963

Public invited to open house at Yuba Job Training Center

LAKE COUNTY — Residents of Lake County are invited to attend an open house commemorating the dedication of the McLaughlin-Yuba College Job Training Center Wednesday, Sept. 21, from 2 to 4 p.m., and Thursday, Sept. 22, from 10 a.m. to 4 p.m. The job training center is a joint venture between the Lake County Center of Yuba College, McLaughlin Constructors, Homestake Mining Company, Davy-McKee Corporation, The Industrial Company and Argee Corporation.

The center will begin its actual training program Monday, Sept. 26, with 24 students in the initial class. These students will be put through a concentrated 11-week program specializing in instruction in the fields of welding, concrete/carpentry and millwright. This instruction will focus on those areas emphasized by the various contractors involved with the Homestake Mine project.

The course will feature standard classroom instruction, but a majority of the time will be spent on "hands

on" projects that will give each student the opportunity to do for himself what has been explained to him by the instructors.

Three instructors, one in each area, will insure specialized training for each student.

Those attending the open house will be able to view tapes of various aspects of the work done by the participating companies, look over the display constructed by Homestake Mining which attracted much attention at the Lake County Fair, examine various job op-

portunities available to local residents and inspect some of the equipment that will be utilized on the project.

Light refreshments also will be served throughout the day. The job training center is located in a large hangar at Pearce Field, off Old Highway 53. Signs have been posted on the highway.

For more information contact the Yuba college center at 994-9447.

Highway

MARYSVILLE — Along a mile and a half Highway 20 in westernity will have drainage in a contract now offered department of transportation. The work will be two miles west of William to the 20/16 junction. Slopes eroded during heavy rains will be re-

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Yuba College jobs skills training center graduates first class

CLEARLAKE — The first class of 22 students graduated Friday from a Yuba College jobs skill training program.

The program, developed jointly by the college, Davy McKee Corporation, Homestake Mining Company (HMC), The Industrial Company (TIC), McLaughlin Constructors and the Argee Corporation, is designed to teach job skills. Graduates also are guaranteed employment at the gold mine



Twenty-two students received graduation certificates after successfully completing a multi-skills training program sponsored by Yuba College, Homestake Mining Company and the major contractors that are building the multi-million dollar facility. Graduates are guaranteed employment upon completion of studies. Shown from left graduate Toni Negrey and The Industrial Company's Director of Personnel Don Silva.

east of Lower Lake which is currently being developed by HMC and its four main contractors.

Students studied welding, millwrighting, industrial carpentry and concrete work and other entry level construction skills.

Graduation ceremonies were held at the Riviera Country Club. Attending the ceremony were officials from TIC and HMC, Yuba College, Employment Development Department, Job Training Partnership Act and Economic Development Commission.

Students were selected and screened by EDD and JTPA personnel.

TIC's Personnel Director Don Silva congratulated the students for doing a fine job in their studies.

He told them they could expect jobs as soon as TIC starts mobilizing equipment and personnel. TIC will build the mill and gold process facility and work should begin the beginning of January.

A crucial permit hearing will be before the Lake Planning Commission Dec. 21. If approval is granted TIC should begin work shortly thereafter. The permit will allow construction to begin on the mill site.

Silva awarded three TIC belt buckles to three students who had the best punctuality and attendance records. Tim Smith, Roger Marney, and Greg Webb, all from Clearlake, received the buckles.

Smith was surprised to receive a buckle. "I thought they only gave buckles for employees who came up with good suggestions to save the company money," he said later.

Diplomas were presented by Rex McDougall, dean of Yuba College. He told the grads, "You have proven yourselves and are a special group."

"You have completed a college program, even though you don't think of yourselves as college students. The real measure of success is how well you do on the job," McDougall said.

Student John Sharp's wife Laura felt the program was really worthwhile. "It's great to have something like this happen in the county," she declared.

The rest of the students shared Sharp's views. Ed Couse, known to his student colleagues as "Big Ed", told Silva, "We really got a lot of motivation from you."

Silva works in the main office of TIC in Steamboat Springs, Colorado. He would often fly in the company's Aerocommander to Pearce Field where the job training center is located and talk to the students about the program.

TIC provided two portable welding labs and one instructor. Even though all prime contractors for the gold mine project invested money in the program, TIC, along with Yuba College personnel, were actively involved in the day to day operation.

The students are all looking forward to working. Only two students did not complete the course.

Yuba College Director Bill Hecomovich wasn't present at the ceremony because of other commitments.

He said the next course will begin on Jan. 3. "EPD and JTPA are currently interviewing prospective students for the multiple skills training course."

According to Hecomovich, a 12-week electrician's course will be initiated Jan. 9. "There will be 18 students in the electrician's course and 24 in the multiple skill's course," he said.

The college is contemplating adding a diesel mechanic's course in the future. The college director said, "We will add courses according to the needs of the contractors."

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• CWA meets

LAKE COUNTY — The Lake County Chapter of California Women for Agriculture met recently for its fall membership luncheon and program at J's Smorgasbord in Lakeport.

Guest speakers were Ellen Leifeld, managing

Ironically, unions including Operating Engineers Local 3 set up a committee in an attempt to organize the mine. The problem I had as journalist to the union's efforts was one of credibility. A so-called jobs committee, for example, purportedly set up by local workers was organized by a Local 3 organizer. At a meeting in Lower Lake in 1983, pro-labor Assemblyman Dick Floyd, a Democrat from Southern California, accused then Lake County Assemblyman Don Sebastiani of "being in Homestake's pocket." Research of financial filing reports with the secretary of state's office showed the exact opposite. Floyd was heavily supported by a wide range of labor PACs, while HMC had made a very minor \$50 contribution to Sebastiani. There were many examples these kinds of activities used by organized labor. In 1994 LAZER, a union group, accused HMC of polluting a tributary of Lake Berryessa during a hearing for re-issuing a water permit. The permit was renewed when the state ruled no pollution had occurred.

This tactic of accusing HMC of shoddy practices was also alleged in 1984 by a union organizer and four former McLaughlin project workers. The five appeared at a hearing before the state Department of Water Resources and said working conditions were unsafe. An inspection by the state Department of Industrial Safety and Health concluded the exact opposite. Stan D. Rhyu, an engineer with that department made an unannounced visit to the project and said the operation was the safest in the state. "It's one of the best places I've seen. A real clean operation," said Rhyu.

a cause not yet noted or observed by varied backgrounds but, "Most are enhanced will help increase the dect

16, 1987

Lake level to date	3.16
Same date last year	4.79

CLEARLAKE

	Low	High
Aug. 8, Wed.	60	103
Aug. 9, Thurs.	74	99
Aug. 10, Fri.	61	94
Aug. 11, Sat.	57	94
Aug. 12, Sun.	61	93
Aug. 13, Mon.	55	95
Aug. 14, Tues.	58	

Low High

	Low	High
Aug. 8, Wed.	60	106
Aug. 9, Thurs.	60	106
Aug. 10, Fri.	72	100
Aug. 11, Sat.	93	93
Aug. 12, Sun.	52	95
Aug. 13, Mon.	54	95
Aug. 14, Tues.	53	98
Aug. 15, Wed.	54	
Sung.	rise	set
Aug. 15, Wed.		8:00
Aug. 16, Thurs.	6:21	7:59
Aug. 17, Fri.	6:22	7:58
Aug. 18, Sat.	6:22	7:57
Aug. 19, Sun.	6:23	7:55
Aug. 20, Mon.	6:24	7:54
Aug. 21, Tues.	6:25	7:52
Aug. 22, Wed.	6:26	

When the suit was filed in June, two plaintiffs contacted were unaware that they had authorized the union to take legal action in their behalf. Plaintiff Van Ross stated, "I'm not suing anyone." Another plaintiff, Charles Thomas Jones, who alleged in the complaint that he was being blacklisted at

The union seeks an injunction to require that 50 percent of the workforce be from the local area.

Homestead McLaughlin Gold Project Resident General Manager Jack Thompson said, "As of June 30, we had 949 employees, of which 509 were from Lake County. That is, they were

here prior to the start of construction. "That's a local hire rate of 55.7 percent and something we can really be proud of."

Local 3 and its organizers attempted to organize the project and the workers during the permitting process when the socioeconomic element of the Environmental Impact Report was under consideration by the Lake County Planning Commission.

The commission did not allow union participation but set up a monitoring committee of planning staff and commissioners to review local hiring percentages. The committee meets once

• please turn in both pages

An autopsy revealed death by drowning. The police are treating his death as a homicide. No suspects are in custody.

On July 28, 39-year-old Adrienne Ann Todd was found dead from two 38 caliber gunshot wounds to the head on the floor of her Snook Avenue home by her boyfriend. He had returned from doing errands when he found her.

There are no suspects in that murder.

Clearlake's third murder of 1984 occurred on Jan. 28. Police arrested a 20-year-old James Robert Jordan two days later for allegedly stabbing Steven Holt Morris, 21, of Grass Valley. Morris' body was found on Lakeshore Drive near Manatee Beach. Charges were dropped against Jordan in February and were later refilled. He is being held without bail and was bound over for trial in Superior Court after a preliminary examination.

In the county, Richard Brumm is now in the third week of his trial for the second degree murder of his wife Beverly in their home in Nice on Feb.

4. On the other side of the county in Loch Lomond on July 7, Vincent Scott Smith allegedly fired 13 .22 caliber bullets into Robert Sinclair Darling. An investigator said that any six of the wounds would have been fatal. Smith is in jail in lieu of \$100,000 bond for murder.

Why do people murder and why does it seem that the rate in the country is escalating?

Sheriff's Capt. George Roxson, chief of detectives said, "Ask a psychiatrist."

He added, "People kill for many reasons: anger, frustration, jealousy,

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associates of the murderer.
"Motive is also an important part of an investigation. You talk to relatives, friends and associates and commit

HOMESTAKE

a month to review employment data.

The commitment to hire 50 percent of the workers from the local area relieved Homestake of an EIR recommendation to build temporary housing for workers attracted to the area because of the project.

Homestake along with the main contractors at the project have also established training programs at Yuba College in Clearlake to teach entry level construction skills needed at the development. Many of the graduates of those programs are now employed.

In other action, Local 3 has announced its intention to McLaughlin Contractors and The Argee Corporation, two of Homestake's three main subcontractors, to represent its employees and serve as their bargaining agent.

According to labor law, 30 percent of the employees would have to sign authorization cards for the National Labor Relation Board to hold an election. In the election, a majority of the workers would have to approve that Local 3 represent them. A McLaughlin spokesman said, "It's my impression they don't have the signatures or they would have called for an election by now. We've been on the project for almost a year now."

Local 3 has also stepped up their efforts of litigating their right to organize the workforce. A subpoena was served by mail to San Francisco KGO television channel 7 by the union attorney Joe McCray requesting all photographs, film video tape, tape recordings, documents and other tangible things relating to news of an interview with Thompson that appeared on Thursday's 11 p.m. news show.

Thompson was briefly interviewed by KGO's Ed Leslie regarding local hiring.

KGO's Andrew Shinnick was unaware of the subpoena saying, "We get subpoenaed all the time."

"We don't have any problem with releasing a tape that was aired but there's no way we would release notes, outtakes and other material."

"We're protected by the 1st Amendment."

"It sounds like a fishing expedition."

McCray was unavailable for comment.

ABC's coverage:

58% Yes • 42% No

Fifty-eight percent of those responding to last week's question of whether or not ABC's TV coverage of the 1984 summer Olympic Games was too one-sided, feel that the broadcasts were one-sided. The survey also

you have."
There were no murders reported in 1962, 1963 or 1964. In 1965 and 1966, there were two murders.

In 1967 the murder rate climbed to three and in 1968 and 1969 the murder rate leveled off to two in each of the years.

In 1970, there was one murder but in 1971, the coroner reported four. There were only three murders in 1972, 1973 and 1974.

After 1975 to the present there has never been less than three murders a year except in 1978 when there was only one reported.

COUNTY FILES SUIT

ed in August of 1983.

An injunction is also sought against the district for maintaining a public nuisance of continued and ongoing violations of the Gopcevic Decree.

The decree regulates lake levels and stipulates the lake cannot be drawn down below zero or raised higher than 7.56 Rumsey except for any given 10 day period when it can reach nine on the Rumsey. The Gopcevic decree resulted from a lawsuit filed by Milos Gopcevic, owner of the Quercus Ranch near Kelseyville in 1919.

The Rumsey Gauge is the official standard measure of Clear Lake levels. The original gauge was erected by a Captain Rumsey on a pier in Lakeport in 1873.

Gopcevic filed his suit because the legal predecessor of the Yolo district built a barrier across Cache Creek near the present White Bridge in Clearlake and installed seven pumps with a capacity of 250,000 gallons a minute. Pumping was done in the irrigation season of 1918 and 1919 to increase food production for World War I.

The pumping and a series of drought years reduced the lake level in 1919 to minus 1.5 Rumsey. The high in 1920 after the rainy season was minus .5 on the gauge.

The Yolo district operates the Clear Lake Dam located several miles downstream of the Cache Creek outlet of Clear Lake. The issue is confused further by the fact that the dam if fully opened during the winter rainy season doesn't materially affect lake levels.

Undercapacity of the Cache Creek channel leading to the dam is the limiting factor of Clear Lake drainage and lake levels, according to county Flood Control Director Hank Porter.

The Bemmerly Decree of 1940 was handed down to protect property owners downstream on Cache Creek in Capay Valley from the effects of erosion caused by enlarging the Clear Lake Cache Creek outlet.

Record rainfall in the winter of 1982-83 caused extensive flooding in Lake County and lake levels crested on Mar. 4, 1983 at 11.32 Rumsey, the highest level since February 1909, the county again looked into clearing the Cache Creek channel.

two children already feel like they are part of the community, he noted.

Hospital staff are pleased with Edwards' open door policy and he can be seen in the wards and in other departments seeing for himself how the hospital functions and what changes will be needed.

Hospital controller Rusty Shelton is another member of the Brim management team with experience with small rural hospitals as well as large urban facilities. "I like smaller facilities," said Shelton. A graduate of California Polytechnic Institute at San Luis Obispo, he has worked in Missoula,

The district cent of net in and 100 percent. The dis windfalls w percent.

On 120 day agreement a district can years of the have to pay investment with tion happen district will term indebted If Brim ca

the channel.

The county took the position based on a later interpretation of the Bemmerly decree that maintenance and clearing was allowed as long as flows were not increased above 1940 flows.

Action was brought against the county by the Capay Water Users Association, the Yolo District and the Hays family, who are the legal descendants of the Bemmerly seeking a contempt action against the four Lake County supervisors acting as Flood Control director who approved the project. Supervisor Howard Day did not vote and was not named in the action.

The court took the county's position

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The county district has a review of in exercising Counsel Ca that damage curred along districts for Gopcevic de

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Darrell Steele is a firm believer in unionism.

Attempts to organize gold mine labor continue

by Richard Mason

LAKE COUNTY — A San Francisco-based labor union representing more than 30,000 workers in an area ranging from Salt Lake City, Utah west to Guam is still attempting to organize workers at the Homestake Mining Company (HMC) McLaughlin Gold Project that is currently under construction 18 miles east of Lower Lake.

Previous organizing attempts by representatives of giant Operating Engineers Local Union 3 were stymied by the lack of interest of employees who have been hired to build the \$250 million gold project.

The union first became interested in the project during the permitting process prior to construction startup.

Union organizer Mark Steckbart appeared at many of the public hearings held here and in Yolo and Napa coun-

ties. He challenged HMC accusing the company of not being candid with regard to local hiring and faulted the socioeconomic plan proposed by the mining company.

Steckbart, who lives in Burlingame, suggested union involvement in monitoring socioeconomic impacts of the project and proposed that union representatives participate in employee grievance procedures.

He felt HMC was not acting in good faith by opposing union participation.

Company officials pointed out that more than 50 percent of the labor force is from the local three county area and are proud of the program at the local community college that they helped finance.

A joint effort by the main subcontractors on the project and federal and state training programs has enabled many locals to learn entry level con-

struction skills.

Most of the graduates are now employed.

Local 3 has opened a storefront office in Clearlake and a drive is now underway to collect worker's signatures on authorization cards that will allow the union to enter into contract negotiations with HMC and its contractors.

Approval by a majority of the workers is needed before any union can intercede and negotiate on a contract.

Local business agent Darrell Steele said, "Our biggest asset is that the workers are being mistreated by the companies."

"Out of state workers are receiving higher rates of pay than locals."

"That's discrimination!"

Union organizer Dave Coburn, with offices in San Francisco and a home in Ceres, in the Central Valley said, "I

cluding \$95,500 for a site relocation study. With the requested budget short \$11,746, the board decided to bring it into balance with revenue sharing funds.

Department of Public Works Director Gene Collins said the relocation study draft is expected in October and until that time all that can be done is to apply the budget to maintenance of the airport.

Lampson Field Airport — A

present and Commissioner Norman Mahlberg disqualified himself because of a potential conflict of interest.

If an appeal is filed, it could be another three weeks before the use permit modifications go into effect, County Counsel Cameron Reeves said.

The board of supervisors would hear any appeal and dump operators could appeal an adverse board decision by bringing suit in superior court.

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LAKE COUNTY — The 30-year-old chert resident accu-

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Dissatisfaction grows over geo dump handling

by Richard Mason

LAKE COUNTY — "I'm still not satisfied. It will eventually end up in court," said Maynard Freeman.

"It's too important an issue. If I can't speak, I'll close this meeting or

you will have to call the sheriff."

"I've wasted six months," said Freeman during the hearing last Thursday before the planning commission.

His anger was prompted by what he believes to be the inability of the county or state to stop ground water contamination on his property by a geothermal waste dump operated by Robert Livemore and Bill Kritikos.

Freeman, along with other proper-

WEATHER

Low High

June 13, Wed

Homestake wins legal battle with operating engineers union

LAKE COUNTY — Homestake Mining Co. has won another battle in its protracted legal war with Local Three of the Operating Engineers. The state Department of Industrial Relations has ruled in favor of the county and Homestake Mining Co. regarding payment of prevailing wages to workers on the 17.1 mile Morgan Valley Road reconstruction project.

The director of state Department of Industrial Relations found that the construction and improvement of Morgan Valley Road was not a public works project for which the payment of prevailing wages was required.

County Counsel Cameron Reeves said there would have been statewide impacts if the department had ruled in favor of the union. "It's the first time I've seen a union advance this argument and interpret a section of the prevailing wage law to cover all work done under any permit by a public agency," said Reeves.

The union had argued unsuccessfully that the Morgan Valley Road was a public works project because the county issued an encroachment permit to HMC to work on the road. The state ruled that Local 3's argument "could conceivably result in prevailing wages being claimed in any case where private construction work is being carried out under the authority of a discretionary permit of any type issued by a public agency. Such permits are required for many types of projects: home improvements, use changes, etc."

If the union had won, it could have set a precedence whereby a developer of a five lot subdivision would have to pay prevailing wages for street, water or sewer improvements imposed by regulators like a planning commission or board of supervisors.

Prevailing wages is generally interpreted by labor unions as union wage scales and the impact to small developers would have been devastating, Reeves pointed out. In Homestake's case, the company could have been required to make up the difference retroactively between union scale and the wages workers on the project were paid.

The state further found that the project cost over \$1000 but it did not involve public work under the legal code. "Neither was this a project constructed under contract or involving public funds. The conditional use permit granted Homestake by Lake County is merely a means of exercising the county's police power, and is not a contract as required by section 1771," stated the judgement.

The county and Homestake had contended that the project was a requirement of a use permit. "There is substantial evidence in the record as a whole that the need for the Morgan Valley Road work was created by the Homestake mining project, and was beyond Lake County's financial ability or willingness to pursue, therefore, making Homestake pay its own way for mitigating the project's impact on the local environment was clearly reasonable," stated the state's ruling.

The hearing on the union's complaint against Homestake was held Apr. 24 and a decision was handed down in early September. The union has been stalled several times in its attempt to organize workers at the gold mine, both legally and by lack of worker interest.

Prior to construction, the union charged Homestake would not hire locally and wanted participation in

the planning commission review process regarding socioeconomics. Homestake pledged it would hire 50 percent of the construction and operational workforce locally. Homestake reports monthly to a planning department subcommittee on its local hiring percentage and has generally met its 50 percent goal consistently, according to the planning department.

Homestake also worked with Yuba College and established construction skills training courses so locals could learn skills needed at the project.

The union also attempted to shut down the project by organizing informational picket lines at the parking lot in Lower Lake and at the mine 12 miles east of Lower Lake in Morgan Valley. The picket lines had no impact, according to mining company officials.

Jobs committee critical of Homestake

by Richard Mason

LOWER LAKE — The first public meeting of the Homestake Jobs Committee was well attended Tuesday night by about 150 persons. One of the first statements made by organizer Ray Cooper was, "We are not a union committee."

The retired business agent for Operating Engineers Local 3 took credit for first raising the local training issue and accused Homestake Mining Company (HMC) of not being responsive to local hiring.

HMC is in the process of developing a giant gold field and mineral extraction plant east of Lower Lake and Local 3 would like to reserve for its members the right to work at the mine and mill, according to past statements made by union organizer Mark Stechbart.

Assemblyman Dick Floyd from Los Angeles was on hand to stress how much Local 3 is interested in the welfare of Lake County.

He accused HMC of not being willing to put hiring procedures down in writing, saying, "HMC insists on bringing in people from out of the area."

He warned of the impacts on Lower Lake and the local schools from the influx of outsiders.

Floyd cautioned the crowd that no redress was available from county representative, Assemblyman Don Sebastiani. "He won't deal right because Homestake bought him off," referring to campaign contributions allegedly made by the San Francisco based mining company.

No representative from HMC was at the meeting and Cooper admitted that they weren't invited.

Cooper said that Homestake did not send bids out to local contractors pointing to the three prime contractors as examples.

Davy-McKee of San Ramon has been selected as the construction manager for the \$250 million project. TIC and Argee from Colorado also have major construction contracts. A Utah based company Gilbert Western dba McLaughlin Constructors has responsibility for the construction of Morgan Valley Road which will provide the main access to the mine and mill from Lower Lake.

Many of the statements made by Floyd and Cooper are in direct contradiction to policies and statements established by Homestake three years ago when the gold discovery was first

announced.

HMC Executive Vice President Bill Humphrey has stated, "a firm commitment to hire local workers, and to use local firms as subcontractors was a key consideration in the evaluation of bids."

Four local firms already have been named as suppliers of goods and services for the project and two local ambulance companies are negotiating to provide paramedic services.

Jim Jonas of Lower Lake will supply fuel and lubricating oils, Abacherli Fencing of Lakeport secured the fencing contract, Ruzicka Engineering of Lakeport will supply surveying services during the construction period and Gilbert Security of Lakeport and Lucerne will provide security services.

Gilbert Security's Bonnie Gilbert said, "I feel they are really trying to hire locally."

The firm's owner Jerry Gilbert, retired California Highway Patrol officer, said, "I am very impressed. The contract has doubled the size of Gilbert Security. All 17 people hired are local."

McLaughlin Mine General Superintendent Jack Thompson pointed out that California construction companies were allowed to bid on the project. "One of the reasons we hired these out of state firms is that you need someone who has successfully completed similar size jobs. Next to lowest bids, the next consideration was local hiring records in selecting contractors," he said.

According to Thompson, McLaughlin Constructors had a 90 percent and higher record of local hiring on a New Mexico project.

Negotiations are underway between representatives of the contractors and Yuba College to provide local training.

One observer at the meeting held at the Brick Hall in Lower Lake, longtime resident Larry Hitchcock pointed out that many of the people who attended the meeting were unfamiliar to him. "I looked around and couldn't recognize hardly anyone," he said.

One Local 3 member from Marin County exhorted the group to pressure their supervisors to make HMC guarantee local hiring.

Cooper closed the meeting by saying, "Local 3 doesn't want to organize the mine. All Local 3 wants to do is to help the poor people get a committee to protect his rights. We just want to help people get organized."

Grow

by R

CLEARLAKE

ing — and that's some of the people for several years is reaching into especially the city.

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Lake County, poorest per capita has "great potential those individuals on the financial pre ty. A Clearlake ago wouldn't rise because of the need has taken place.

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Safety record noted

LAKE COUNTY — Figures recently released show that workers at the McLaughlin Gold Project achieved an exemplary safety record. There were no fatal accidents during construction. The accident frequency rate was 2.92 per 200,000 hours worked at the project. The national average was 6, according to the Department of Labor, Bureau of Labor Statistics.

The accident severity rate was 54.3 missed work days per 200,000 hours worked. The national average for construction was 115.

According to project manager Davy McKee Corp., There was one lost time accident for every 33.5 man years worked and one physician's visit for every 3.75 man years worked. One official noted, "That's pretty impressive when you consider that workers on the project have put in more than 3 million man hours since the project began more than 20 months ago. This is equivalent to approximately 1440 people working for one year."

Homestake Mining Co. McLaughlin Gold Mine Resident General Manager Jack Thompson said, "Homestake employees have not had a single lost time accident since the project began in 1981. We have more than 300,000 man hours also."

Thompson and his crew of workers, now numbering more than 200 are hoping to win the coveted Sentinel of Safety Award. This is given to the mine operation with the best safety record in the United States. Davy McKee developed a safety program for construction and construction subcontractors while Homestake has its own separate safety department for the project and a separate corporate level safety department to oversee other mining operations.

Davy McKee officials said, "The McLaughlin Gold Project safety program was developed and coordinated by Davy McKee Corp. Each contractor on the project was responsible for establishing their own safety program within the guidelines."

"More than 50 percent of the construction workers were hired locally from Lake, Napa and Yolo counties. Many of these workers had no previous experience in heavy construction. This lack of experience created the likelihood of additional accidents."

In order to alleviate potential problems special safety programs were set up including, safety orientation and training, restricting size of work crews so that foremen had less people to be responsible for, safety awards and safety incentives, weekly required safety meetings and continuous safety inspections.

Job safety is prime factor according to mine officials

LAKE COUNTY — Safe working conditions and worker safety have been a prime concern in the construction industry for years. Officials with McLaughlin Constructors were dismayed last week when several laid off workers complained about working conditions and on-the-job safety conditions.

McLaughlin Constructors is one of the prime contractors for the Homestake Mining Company's McLaughlin Gold Project currently under construction east of Lower Lake in the area where Lake, Napa and Yolo counties intersect.

McLaughlin Constructors Safety Coordinator Ernie Edwards felt the accusations of poor safety conditions were unjust in light of the enviable safety record achieved by his company.

He explained McLaughlin Constructors is a joint venture by Gilbert Western Corp. and Industrial Constructors for the McLaughlin Gold Project. Edwards works for Gilbert Western.

According to Edwards, Gilbert Western's safety record is enviable in the construction industry. "There is a six times greater chance of getting hurt working for other companies nationwide," he said.

"Safety at McLaughlin is always first," Edwards added.

Edwards said the first thing a new employee is required to do is view video tapes which explain the proper procedure to be followed with regard to his job. He said the tapes are different for each position.

"The biggest safety item is a weekly meeting which all employees are re-

quired to attend. Each meeting is different and we encourage employees to participate and offer safety suggestions. The employee signs an attendance sheet that lets us know that the meeting was attended. If for some reason the worker didn't attend, he or she has to make up the meeting at the first opportunity," he said.

The safety supervisor indicated that if a worker is injured a procedure is followed which allows the company to study the accident so measures can be taken to prevent a recurrence of the accident.

"We analyze the problem as to what happened, how it happened and how to keep it from happening again," he said.

There also are weekly meetings that supervisors are required to attend to discuss on-the-job safety and working conditions.

The company has a safety incentive program. Workers are rewarded for safety suggestions. "We award a \$50 dinner for two at a restaurant in town to the supervisor who comes up with the week's best safety suggestion," Edwards declared.

First aid is another area where McLaughlin Constructors is concerned. According to Edwards, each supervisor is required by company policy to be first aid certified with emphasis on mining and construction accidents.

"At the beginning of each project, the company develops a hazard analysis that covers all phases of the operation so we can be forewarned as to potential hazards," he averred.

Workers are required to wear seat belts when operating any of the com-

pany's equipment, whether graders or pickup trucks.

Edwards said all equipment is checked on a periodic basis for proper operation, and lights and other components are inspected for proper operation.

He said the majority of people who have been hired have been anxious to go to work and have done an excellent job for us. "Overall we have had a good response to the safety program," he said.

He explained that when workers are observed not following proper safety and work procedures, they are warned verbally first and are instructed in the proper procedure. "The second time they are seen working in an unsafe way, the worker receives a written notice which is placed in his personnel file. They can be fired for the third infraction," he said.

Besides the human element of not wanting to see fellow employees hurt, Edwards pointed out that it is in the best interests of the company to have an aggressive safety program. Insurance carriers who insure giant construction projects such as the one now underway rebate portions of the



McLaughlin Constructors Safety Coordinator Ernie Edwards is proud of his company's safety record

premiums upon safe completion of the project.

According to the project's construction manager, Davy-McKee Co., the premium for the McLaughlin Gold Project is in the millions of dollars. Edwards has been in construction

safety almost from the beginning of his career which started 12 years ago. It has been with Gilbert Western Corp. for four years and is an emergency Medical Technician II. He was born in the Sacramento Valley.

Fee increases, other plan decisions face city council

CLEARLAKE — Several planning issues were before the Clearlake City Council Monday evening.

The council deferred action on Planning Director Don Bayer's request to

increase from \$75 to \$200, variance application fees will jump from \$50 to \$150, rezoning requests from \$100 to \$250 and general plan amendments from \$100 to \$250.

tant Mundie and Associates to prepare ordinance and map as required. He pointed out that council should be aware the first two options would result in a delay which involves time

Editorially, The Clear Lake Observer supported the mine because it was seen as positive for the south county. HMC's commitment to local hiring was singled out by the Observer by pointing out that unions at The Geysers never provided local jobs training through area community colleges, or even any apprenticeship programs to assist local hiring programs. The paper also pointed out the means used by Operating Engineers Local 3 in an effort to undermine local hiring.

However, all our coverage wasn't 100 percent positive. Once during construction, the newspaper took issue with the workers' *ad hoc* process of changing names of geographical features at the project site and in the Lower Lake area.

Generally, the mine was perceived as good for the community and as a community newspaper, we supported the project. Along with editorial support, the newspaper provided exhaustive, comprehensive news coverage of the project and stories appeared in almost every issue.

A San Francisco based labor union has stepped up its efforts to organize workers at the Homestake Mining Company's McLaughlin Gold Project now under development east of Lower Lake.

Local 3 of the Operating Engineers, in a three way attack against the gold field developers, is suing Homestake and its contractors in San Francisco Superior Court, is seeking certification through the National Labor Relations Board to represent workers and has established informational pickets in Lower Lake at the company's park and ride lot.

The suit claims that Homestake is not using local labor and is discriminating against locals by hiring out of county labor at the project. A charge denied by the company and by a hiring committee established by the county to monitor hiring.

Where was Local 3 when county unemployment rates hovered at 20 percent and more?

Where was Local 3 when job training programs and facilities were needed to train locals? The mining company is financing training and facilities at Yuba College in Clearlake to teach skills needed at the project.

Where was Local 3 during the last 15 years of development in the Lake County Geysers' steamfield?

Local 3 represents many workers at The Geysers but has made no effort to open employment there to locals. Is Local 3 more interested in dues than the wellbeing of county residents? Is Local 3 more interested in securing employment for its many out of work out-of-county members? These are questions that need answering by union officials.

If Local 3 is so concerned about Homestake not utilizing local labor to the greatest possible extent, why hasn't Local 3 aggressively recruited their workers at The Geysers from the local labor pool?

Why did Homestake make a commitment to hire 50 percent of its workers locally as a use permit condition, and why haven't similar use permit conditions been applied to Local 3 and the steamfield developers?

Other than Local 3 members who reside here, Local 3 represents outside interests and is more interested in looking after its members than caring about local unemployment.

Action group responds

Editor: In answer to a recent letter to the Editor, it's hard to believe, but I think they may have been referring to the Lower Lake Community Action Group.

I happen to be the current chairman and would like to respond. Incidentally my dad, Milton Kugelmann, helped form the Lower Lake Civic Club, the Lower Lake Water Department and the Lower Lake Volunteer Fire Department. He was concerned about the future of Lower Lake just as we are. The goals of the Lower Lake Community Action Group are to help Lower Lake remain a healthy independent town. We need the support of the citizens of Lower Lake.



Staging up Mt. St. Helena.

LETTERS TO THE EDITOR

Letters, articles and photos are welcome

Letters to the editor are welcome. The *Clear Lake Observer* reserves the right to edit all letters for style and length. Typewritten letters stand more assurance of publication. Handwritten letters are accepted but will not be published if they are not decipherable by our editor and typesetter. Brevity is encouraged and name, address and/or phone number for verification is required. Names will be withheld upon request.

The letters to the editor column is not intended to express thanks to individuals or businesses but these articles will be accepted if space allows. The "Card of Thanks" portion of the *Observer* classified section is available for this type of expression.

Waste dump issue

Editor: Regarding the recent controversy over the site, I have lived in Anderson Springs for eight years. I am a soil mechanics at Harvard, toured the Gill dump facilities and worked on the steam wells.

When I first went to work on the mountain, one was to connect piping to a sump site that was supposed to be a curious looking nature ran over the banks of a hill towards Bear Creek was done quickly and surreptitiously with the no lookout for county trucks.

A man was brought in to run the pump through the creek. I later found out that this was drilling the creek. The company deliberately fouled the water disposal costs. Some local residents noticed a pipe to the water, the Fish and Game traced the so sump site, and the company spokesman maintained an accidental discharge.

They were given a wristslap and light fine which is a deterrent, and according to innuendo were a

EDITORIAL

Local hiring and training plans should be stipulated as use permit conditions for future geothermal power plants. The geothermal industry should be forced to follow the same conditions that applied to Homestake Mining Company in the use permits for the McLaughlin Gold Project, now under development east of Lower Lake.

Homestake went beyond requirements and in cooperation with Yuba College in Clearlake developed training courses to teach skills needed in gold mine construction and operation.

The college benefited along with local students who are now employed by Homestake's contractors at the gold mine development.

The greatest beneficiary, in reality, has been Homestake, in terms of positive community public relations. The ongoing training program also will create a potential employment pool that will be tapped when needed by the company.

Skills used at The Geysers are more complex and take more training to acquire than ones used in gold mine and mill construction and operation.

Conditions are a bit different in the geothermal industry because most of the workforce at The Geysers is recruited from labor union hiring halls in Santa Rosa, Sacramento and the Bay Area.

The county in cooperation with labor and industry leaders should be able to devise a plan as part of use permit conditions to allow entry into union apprenticeship training programs by local youth who show aptitude and motivation.

Courses could be developed at Yuba College with help from union training officials so students could learn basic craft union skills used in The Geysers in power plant construction.

A pre-apprenticeship program could be used to screen and weed out unsuitable applicants prior to entry into the formal union programs.

Yuba College also would be in a good position to oversee any training program because of its experience in training workers for the McLaughlin Gold Project. A vocational education building at the college, financed partially by Homestake, is in the planning stages, and an ongoing program is slated.

Good jobs with decent pay scales are scarce in Lake County which has forced many youths to move out-of-county to secure challenging careers with good pay.

The unions that represent workers at The Geysers should be forced to reserve space in their apprenticeship training programs for local youths who show promise and aptitude for such training.

It would change the image of labor unions, locally, and not cost anything. Apprenticeship training has been part of the craft union movement for generations and many hours of classroom and hands-on training is required for journeyman status.

The local unions should follow Homestake's example and provide access to locals in their training programs. If they voluntarily do not develop a method for local hiring and training they should be forced to for the privilege of representing workers in Lake County's portion of The Geysers' geothermal complex.



In 1897 a parade was an event that brought out to head south on Lakeport's Main Street. The building that housed Oscar Meddough's Pharmacy extended into the lake to allow boats to moor. A interesting touch. We would appreciate information especially for the event

LETTERS

Letters, articles and photos are welcome

Letters to the editor are welcome. The *Observer* reserves the right to edit all letters and length. Typewritten letters stand more chance of publication. Handwritten letters are accepted but will not be published if they are not decipherable by our editor and typewriter. Brevity is encouraged. Name, address and/or phone number for verification is required. Names will be withheld upon request.

The letters to the editor column is not an express thanks to individuals or businesses. Articles will be accepted if space allows. "Point of Thanks" portion of the *Observer* classification is available for this type of expression.

Deadline for submission of articles and photos is Friday before publication. Be sure to include description of the event, full address, a charge if any, time and date. The *Clear Lake* does not guarantee return of photos and is not liable if photos are lost.

VITAL STATISTICS

Births

Births at St. Petrus Hospital:

A girl, to Jean and Roy Bowers, Clearlake, June 14, 1984. Shaunatay Marie, 5 lbs. 0 oz.

A boy, to Jane Rofford and Bryce Hixson, Clearlake, June 30, 1984. Bryce Anderville Jr., 6 lbs. 1 oz.

Comments not needed.

Newcomers settling into a rather disturbing habit

Tradition is threatened when new names for physical and geographical features are coined and used by county newcomers.

To wit, the practice of workers and developers of the McLaughlin Gold Project east of Lower Lake to give new names supplanting those used for more than a century by pioneers and their descendants in the Morgan Valley area.

Gold field developers and contractors should nip this nefarious practice in the bud and not encourage this troublesome new trend.

"The Hill" as the mine area in general is referred to by workers is particularly unsettling in light of the fact that Knoxville is a perfectly good name for the location of the development.

Mercury/quicksilver has been mined in the Knoxville area for more than 100 years and just because the area is more than 1,000 feet higher in elevation from Lower Lake shouldn't justify a name change.

Another area of concern is the designation of Hunting Creek Flat as "The Meadows."

While the description is apt for the area east of the gold process site currently used for offices and equipment storage, some thought should be given to potential ramifications of such a designation.

Hunting Creek has been Hunting Creek and Hunting Creek Flat has been Hunting Creek Flat ever since Samuel Hunting settled the area around 1860. Popular usage could result in a name change on future maps.

This has happened before in the area. One only has to look at maps of the area to see one glaring example. The Reed Quicksilver Mine located near the Davis Creek Reservoir now under construction has had its name on maps changed to the Reid Mine. Worthen Bradley who owned the property along with several other historic Lake County mercury mines knew it as the Reed as late as the mid-1940's.

Who changed the name and why is still to be explained.

A misconception also exists that Morgan Valley Road traverses Morgan Valley when in fact the road enters the valley about nine miles east of Lower Lake.

Out of Lower Lake the road winds up Little Soda Canyon to the White Hill or White Turn named because of the color of the geological formation there.

The turn/hill is just prior to where the present pavement ends at Soda Creek crossing. The creek is approximately $5\frac{1}{2}$ miles east of Lower Lake and marks the beginning of the England Grade.

The road climbs through the former England ranch property and the ranch house can still be seen about $\frac{1}{2}$ mile east of Soda Creek on the north side of the road.

Almost at the top of the England Grade is Cape Horn named after the South American cape because the road makes a wide sharp turn there.

As one nears Morgan Valley, the road crosses Palmer Creek and Palmer Grade begins. At the crest of the grade about $8\frac{1}{2}$ miles from Lower Lake Morgan Valley begins.

The Palmer Ranch was located in the center of the valley and at the intersection of the road to the Hallie Bond Ranch. Judy Combs from Kelseyville is one of the many Bond descendants still in Lake County. The road crosses the valley to Reiff Road, $11\frac{1}{2}$ miles east of Lower Lake. Location of project facilities has resulted in closure of Morgan Valley Road at this juncture and Morgan Valley Road has been relocated along this path.

Reiff Road was named after the pioneer John Reiff who operated a postoffice near Hunting Creek Flat.

The last postoffice was located west of the intersection on property now owned by Dazzie Barnes, near the site of the Morgan Valley Grammar School. The building was razed in the 1940's and was just west of the Barnes' barn still standing.

It would be good to remember the pioneers who settled the area before contemplating name changes.

486



LETTERS To

Education available to all

Editor: I'm writing in response to Marion Mladovich's Apr. 26 letter concerning the quality of public education. My rebuttal isn't so much to debate Ms. Mladovich's obviously inaccurate data, but to inform the people of Clearlake about the quality of our public schools.

A quality educational program is available to all school-age students. Unfortunately, there are factors such as transiency, environmental influences, and individual student's motivation that negatively affect the education of a small percentage of the students. For these students we have counselors, nurses, and school psychologists. The majority of students, however, have needs that are more than adequately met.

Many students in the Clearlake area, by choice, are not college bound. Because of this, we are now in the process of applying for federal funds to begin vocationally-oriented career education in seventh and eighth grade.

High school students currently can enroll in award-winning vocational education classes that prepare them to function as welders, metal workers, carpenters, secretaries, office workers, auto mechanics, computer operators, etc., when they graduate from twelfth grade. The high school's counseling staff works extensively with both college bound and vocation bound students.

Academically, we enroll students in classes that are commensurate with their ability. The vast majority of our classes are for students with average to below average ability.

It may be interesting for Ms. Mladovich to know that one of the most important factors influencing a child's educational development is the extent of their parent's active participation in their education. Parents who are actively involved usually rear children who are successful in school and other endeavors in their life.

I hope that Ms. Mladovich, and any other concerned citizens, will take a few minutes someday and visit one of our schools.

Sincerely,

Scott F. Mahoney, principal
Lower Lake Junior High School

A deadly disease

Editor: Sometimes I wonder about the average American — willing to go thousands of miles across an ocean to preserve some endangered animal species, or to try to snore

4—Clear Lake Observer, Thursday, August 11, 1983

Editorial

Homestake Mining Company (HMC) has begun the process of acquiring the necessary permits to allow them to undertake the development of a gold ore body in northwest Napa County.

Environmental documents prepared by HMC indicate the majority of the mine and mill employees will live in southeastern Lake County with Morgan Valley Road providing access to the \$200 million facility.

HMC already has agreed, in principle, to pay for a multimillion dollar reconstruction and realignment of Morgan Valley Road but some thought should be given to the potential traffic impacts in Lower Lake. The San Francisco-based company predicts that 12 to 15 tractor trailers a day will deliver cargo to the project. Some of these loads will include hazardous materials needed for the gold extraction process.

In an effort to mitigate traffic through Lower Lake, HMC will require employees to use a park and ride facility on Highway 53 and be bused to the mine and mill.

The major problem foreseen is the diagonal parking in downtown Lower Lake which in some cases requires motorists to back blindly into the traffic lane. The elimination of diagonal parking has been suggested and during the Environmental Impact Report hearings a recommendation was offered that HMC provide an offstreet parking lot to make up for the lost parking spaces. Parallel parking would replace the present diagonal arrangement.

The board of supervisors and the planning commission should mandate as a condition of approval of the HMC permits the requirement to provide for offstreet parking if a hazard occurs as a result of the increased traffic.

The requirement for offstreet parking should be a standby requirement to be used only if diagonal parking is eliminated.

In addition to local hiring and training plans, HMC and its main subcontractors accomplished many positive projects for the community. A playing field in Clearlake was completed in October 1984. The mine and its contractors also worked with the Boy Scouts of Napa County to help develop facilities at its camp in northern Napa County, north of Lake Berryessa. Homestake also worked with area schools and service clubs to provide speakers to educate and inform about the mine and modern gold recovery processes.

Community effort creates new parking lot for ballfields

CLEARLAKE — A new parking lot at the ball playing fields at Redbud Park was completed recently through the efforts of many in the community. Konocti Little League member Jim Carmichael reported, "Money for this as well as for fencing, backstop, underground sprinklers and other items and services was donated by Clearlake Rotary Club, Homestake Mining Company, Davy McKee Corporation, Southshore Seniors, Highlands 40Plus, Coca Cola Bottling Company, and Geysers Geothermal Company."

According to Carmichael, Dana Van Pelt with Clear Lake Lava Rock Company; Bob Berry with South Shore Trucking; Greg Edins Trucking; Bill Faith with

Kennerly Trucking; Martin Mahnquist with Saccato Trucking; Lauren Shearer with Smith and Breazeale Inc.; Virgle Lansdowne Construction; Larry Morrison with Colonial Title Company, Ken Shaul with Clear Lake Tire and John Abacherli with Abacherli Fencing also gave time, materials or service.

He pointed out access to the area was helped by installation of a 40 foot long 36 inch culvert by personnel from the County Public Works and Parks Departments.

The fields will be used by Little League players at an upcoming Tournament of Champions. County teams will face out-of-county teams over a one week period starting June 28.

Volunteers work on athletic field

LOWER LAKE — Volunteer work resumed Saturday, July 21, on the new Lower Lake High School football field and track which is jointly sponsored by the Rotary Club of Clearlake, the Lakeshore Lions Club and the Clearlake Service Club.

According to Cal McCarley, the coordinator of the project, "The athletic field should be nearing completion this year and may be ready for use in 1985." Hundreds of hours of manpower and heavy equipment time have been donated to this community project by local companies and individuals over the past four years.

Saturday, the field was brought to grade, thanks to Jeanie Allen of Lower Lake, who donated several hundred yards of choice top soil.

The top soil was moved with dump trucks donated by Greg Eddins, Larry Saccato, and Mike Epidendio (who supplied three dump trucks, a motor grader and a water truck).

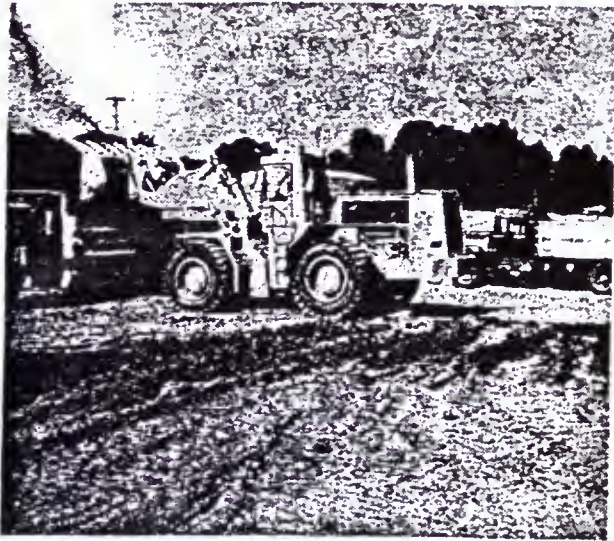
Homestake Mining donated an eight yard loader which

kept all the trucks moving. Jim Kennedy, a construction inspector with the county of Lake, donated his time to set the grade stakes for the motor grader which was operated by Bob Morrell. Tim Dugger, Phil Adamson, Ted Lewis, Larry Saccato and Greg Eddins were kept busy in the dump trucks by Mike Epidendio who was at the controls of the Homestake loader.

McCarley pointed out that the field is now ready to be prepared for the drainage system after which an irrigation system will be installed and finally it will be seeded before the winter rains begin.

McCarley also noted that all the work completed to date has been provided by volunteers and donations made by numerous service clubs and non-profit organizations as well as individuals.

The project is headed up by a steering committee comprised of representatives from the Rotary Club of Clearlake, The Lakeshore Lions Club and the Clearlake Service Club.



Eight yard loader donated by Homestake Mining was operated by Mike Epidendio.



Project Coordinator Cal McCarley (left) discusses field layout with Jim Kennedy, a construction inspector with the Lake County Public Works Department.

6—Clear Lake Observer, Thursday, August 9, 1984



One scoop is all it takes with Homestakes' giant loader to fill the trucks donated by Mike Epidendio, Gregg Eddins, and Larry Saccato.



New Football Field and Track should be ready for use in 1984.

Photos by George Ryder

Contractors volunteer time and equipment to new playing field

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Clear Lake Observer, Thursday, October 11, 1984—9



The firms of Davy McKee, Ruzicka Engineering, Fitzgerald and Hazlett and The Argee Corporation donated time, equipment and materials to level an area at Redbud Park in Clearlake for a Little League field and two T-ball courts. The T-ball courts can also be used for a soccer field.



The new playing field area at Redbud Park was partially leveled recently. Irrigation lines for sprinklers will be installed

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Contractors volunteer time and equipment to new playing field



Ruzicka Engineering surveyors Rob Clay (L) and Howard Dashiell were two of the volunteers who worked on the Little League baseball field project at Redbud Park.



Little League Vice-President Jim Carmichael (l), and Davy McKee Inc.'s contracts manager for the McLaughlin Gold Project.

mine employees pledge scout camp support

Camp Berryessa, located on Putah Creek and operated by the Silverado Area Council, Boy Scouts of America, was the recipient of a pledge by the employees of The McLaughlin Gold Project to provide funding for design drawings, permit services, and survey work needed for a new central sanitation, shower and swimmer change room facility.

John Ransone, Project Manager for Homestake Mining Company, and Klaus Thiel, Project Manager for Davy McKee Corporation, builders of the McLaughlin Project, delivered this commitment, through Silvia Loving, public relations director, and Paul Morgan, Environmental Manager, to Dr. Jack Jensen of Napa, Council President, at a luncheon meeting held recently at Spanish Flat Inn.

The meeting was also attended

Reclamation; Austin Kelly of Napa, Council Camping Chairman; Lou Risley of Napa, Council Properties Chairman; Lee Dupper of Vallejo, Vice President of Program; Keller McDoanld of Middletown, Lake District Committee; Steve Johnston, Camp Berryessa Ranger; and Bob Bradley of Dallas, Associate Director of

National Council Engineering Service.

Terry Tibor, Council Executive, said, "The support is the catalyst we need to move forward in securing funding from foundations, local businesses, and Friends of Scouting in order to provide this needed addition."

The firm of Bond and

Doughterty of Vallejo has been secured to prepare the actual design drawing.

Annual use exceeds over 3,000 camper days, of which 60 percent is non-Scout cost use, by Girl Scout, YMCA, and church groups. Parents without Partners, and Parents for Heroes terminally ill children from David Grant Hospital at Travis Air Force Base.

Homestake workers' gift to scout camp

LAKE BERRYESSA — Employees at Homestake Mining Company's McLaughlin gold mine will be donating whatever funds are necessary to plan new central sanitation and shower facilities at the Boy Scouts' Camp Berryessa.

The Silverado Area Council notes that the improvements will be used by the more than 3,000 campers who come to Camp Berryessa annually. The donation will cover the cost of design drawings, permit services and survey work.

The mine and mill have received many awards for its environmental quality, and wildlife-habitat enhancement. It meets or exceeds stringent California, federal and county requirements. Designed for zero-discharge, it allows no contamination to enter the air or water. Ecologists and scientists at the project ensure that all air, water and other environmental regulations are observed.

During construction the mine received a commendation from the Yolo County chapter of the Sierra Club for its efforts on behalf of the environment. During the operation phase in 1986, the mine was responsible for cleaning up toxic tailings left at the historic Empire Mine State Park in Grass Valley, Nevada County. HMC removed 43,000 to 50,000 tons of tailings that were leaching cadmium, lead, and arsenic into streams, and processed them through its gold recovery process in Lake County. The tailings were used to enhance gold recovery at the McLaughlin Mine and Mill.

HMC also cleaned up the historic Reed Mine, next to its freshwater reservoir in Yolo County, that was leaching mercury and other heavy metals into Davis Creek.

A project also created new habitat for an endangered bat species that lived in abandoned mine diggings and adits at the mine site.

Courtesy Homestake
Mining Co.

MANHATTAN PROPERTY EVALUATION

KNOXVILLE DISTRICT

NAPA and YOLO COUNTIES, CALIFORNIA

by

Joseph D. Strapko

May, 1978

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INTRODUCTION

The Knoxville District is in the Coastal Range of California, near the intersection of Napa, Yolo, and Lake counties. The district is about 20 miles southeast of Clear Lake and 15 miles northwest of Lake Berryessa. The mines are along the same serpentine belt as the Wilbur Springs district, about 13 miles south of the Cherry Hill prospect, although no roads exist between the two areas.

The district has been mined exclusively for mercury and apparently has not been previously explored for gold. In the mapping and sampling just completed, a mineralized zone 700 feet wide and 5300 feet long was found, in which 49 samples were taken averaging 0.11 oz./ton Au. This zone is almost entirely in the Manhattan Mine area.

The mineralized zone follows alteration along the contact of the serpentine and Knoxville sediments, as does the mercury mineralization. Both the gold and mercury mineralization appear to be related to silicification in the forms of chalcedony, quartz, and opal. Whether or not the gold and mercury were deposited in the same event is in question.

HISTORY

The Knoxville District consists of six mercury mines; the Knoxville, the Manhattan, the Royal, the Harrison, the Reid, and the Red Elephant. All the mines, except the Red Elephant Mine, lie along the contact of Knoxville sediments and the serpentine over a four mile strike length. The Red Elephant Mine is not covered in this report. The mines in this district have always been borderline, with most of the production

in years with high mercury prices. The district has produced 156,458 flasks of mercury between 1860 and 1943, 121,967 flasks coming from the Knoxville Mine. Production records since 1943 are not available at the present time.

There has been recent exploration for mercury at the Manhattan and Reid Mines. The exploration at the Manhattan Mine has consisted of dozer cuts where cinnabar shows at the surface. At the Reid Mine and Kauffman prospect, geophysical work and drilling were done in the late 1960's, when the mercury price was between \$400 and \$600 per flask. The IP data at both prospects showed sulfide anomalies and drilling was done at the Reid Mine. Six core holes and twenty-five rotary holes were drilled at the Reid Mine with little success. Locally abundant pyrite and marcasite was present in opalized serpentine, however, very little mercury was found.

At the present time, the Manhattan is the only mine with plans for production in the near future. Mercury would be produced from chalcedonic quartz at the serpentine-sediment contact zone and the adjacent basalt. The operation would probably be 150 TPD or less and hinge on the price of mercury. Also, minor amounts of the chalcedonic quartz is sold for decorative rock and the area has potential for geothermal development.

GEOLOGY

There are five major rock types in Knoxville District; Knoxville sediments, intrusive serpentine, volcanic tuff or ash, extrusive basalt flows, and banded chalcedonic quartz.

The Knoxville sediments are rarely exposed in the mineralized zone. Outside this zone, the sediments are mostly olive green, locally weathered grey, and appear relatively

unaltered. The sediments consist of argillites, graywackes, interbedded argillites and graywackes, and a pebble conglomerate at the Reid Mine. The volcanic tuff or ash is possibly a highly silicified argillite.

The intrusive serpentine varies in character from fresh massive serpentine to foliated altered serpentine. The fresh serpentine is dark green and locally silicified. The altered serpentine is foliated and friable. Oftentimes this foliated serpentine contains massive boulders which is commonly referred to as "detrital" serpentine. The altered serpentine varies greatly in color, from white to green to yellow to brown in various shades. The altered rock contains various amounts of limonite, presumably from weathering of magnetite and/or iron sulfides. To the southwest of the Manhattan Mine, some of the serpentine has a fragmental nature with minor amounts of basalt fragments. This fragmental serpentine probably represents the contact zone with the overlying basalt flow.

The volcanic tuff or ash is exposed in several locations along the chalcedonic quartz and at the Soda Springs Prospect. This unit is grey, aphanitic, highly silicified, and often times fragmental in nature. The unit underlies the basalt flow and is possibly a silicified argillite. In most cases, there is marcasite and/or limonite after marcasite present.

The Knoxville sediments, the serpentine, and the volcanic tuff are capped by basalt flows. The basalt is grey to brown, fine-grained, dense and massive. It is altered in the zone of chalcedonic quartz.

The chalcedonic quartz zone consists mainly of banded chalcedony veinlets, with minor opal and quartz veinlets and basalt fragments. There is a wide variety of colors due to the impurities in the chalcedony. The formation is mostly white, brown, and red.

STRUCTURE

The major feature in this area is the contact zone between the serpentine and the Knoxville sediments. All of the mines in this district are located at the contact zone. The approximate regional strike of the contact zone is N 45° W. This contact is presumed to be a fault contact. Averitt (1945) states that numerous cross faults are present, however, I have not found any in my surface mapping. Evidence for a major cross fault is present between the Harrison and Reid Mines; the serpentine at the Reid Mine being found along the strike of Knoxville sediments to the southeast.

The main zone of interest is the chalcedonic quartz, which is found at the Manhattan Mine and trends at N 33° W. The zone is found at the contact of the serpentine and Knoxville sediment, apparently following the older structural feature. The actual contact is not exposed because of the basalt cap. The chalcedonic quartz is the youngest formation in the area, cutting through the basalt flows which cap the other formations.

The basalt flows cap the serpentine and Knoxville sediments and is found mostly in the Manhattan Mine area. The flows strike at approximately N 18° W and dip from 25° to 45° southwest. Averitt (1945) states that basalt dikes are present at the Manhattan Mine. These dikes would probably follow the serpentine-sediment contact also.

The opalized serpentine, in which most of the mercury mineralization has been found, is also at the serpentine-sediment contact. This opalized zone never extends more than a few hundred feet away from the contact.

SILICIFICATION

The silicification appears in three different forms; chalcedonic quartz veins, silicification, and opalization. This alteration post-dates all the formations and may represent more than one event.

The chalcedonic quartz zone appears to be replacement along the contact zone between the sediments and serpentine. The zone as it is exposed consists of banded chalcedonic quartz veins, minor quartz and opal veins, and varying amounts of basalt fragments. In the middle of the zone, there is minor basalt and it is often times silicified. To the northeast, the amount of basalt increases, the amount of chalcedonic quartz decreases and the basalt is argillicly altered and often times friable. To the southwest, the exposures are limited and mostly serpentine.

The silicification occurs in the serpentine, in volcanic tuff, and in the basalt as mentioned above. In several localities, massive serpentine has been silicified. These outcrops are presumably the extension of the chalcedonic zone into the serpentine. Paralleling the chalcedonic zone is a silicified volcanic tuff, that is brecciated along the southwestern contact. The unit is silicified at every outcrop.

The opalization occurs in the serpentine commonly called "detrital". This opalized serpentine is found at the Knoxville, Harrison and Reid Mines as the principal host for mercury mineralization and is confined to the contact zone between the serpentine and sediments. There are scattered occurrences at the Manhattan Mine, however, none are found in the main body of mercury mineralization.

The different types of silicification may represent more than one event or one set of conditions. There are some small

workings in "detrital" serpentine about 2500 feet northwest of the Harrison Mine, where scattered quartz veinlets are cutting through the opalized serpentine. These workings lie along the strike of the chalcedonic quartz zone and may be important in determining the necessary conditions for gold mineralization.

MINERALIZATION

MERCURY

The mercury mineralization, present as cinnabar, follows the contact zone of the sediments and serpentine throughout the district. The economic values are mostly in the opalized serpentine with the exception of the Manhattan Mine. At the Manhattan, most of the production was from the chalcedonic quartz zone with recent production from the basalt, up to 1500 feet northeast of the contact. The mercury content appears to be highly variable, even within the mine areas themselves.

OTHER SULFIDES

The iron sulfides, mostly marcasite, and limonite after sulfides follow the same trends as the mercury mineralization and also appear to be highly irregular in content. They are found in all the rock types present, though mostly in the opalized serpentine and volcanic tuff.

Minor native sulfur and stibnite are present. The native sulfur appears to be associated with the cinnabar. Stibnite was found in two locations at the Manhattan Mine associated with chalcedonic quartz veinlets in basalt and both outcrops had significant gold values.

GOLD

The significant gold values have all been found at the Manhattan Mine. These values are in or adjacent to the zone of chalcedonic quartz and are within the zone of silicification. The zone is approximately 800 feet wide and 5300 feet long. At the northern end, another 2500 feet has virtually no outcrop. Forty-nine samples have been taken in this zone with an average grade of 0.11 oz./ton Au. These samples were taken in the chalcedonic quartz, basalt with chalcedonic quartz veins, and the silicified volcanic tuff. The highest values, greater than 0.10 oz./ton Au, appear to be associated with the chalcedonic quartz veins, either alone or in the basalt. These gold values do not appear to be related to the amount of sulfides or limonite after sulfides. The most consistent values were in the silicified volcanic tuff. There was only one sample with a trace amount, which was taken outside of the Manhattan Mine area. The rest were between 0.02 and 0.08 oz./ton Au, with an average grade of 0.045 oz./ton Au for all samples taken in the formation.

Traces of gold were found in the argillized basalt along the northeast edge of the silicified zone at the Manhattan Mine. Most of the samples contained at least a trace of gold up to 1500 feet away from the mineralized zone. Therefore, the distribution of gold is over an area of 2500 feet by 5300 feet, which represents considerable tonnages.

CONCLUSIONS AND RECOMMENDATIONS

Significant gold values have been found over a large area and the prospect looks promising, however, several problems may arise. The significant gold values are found in formations that might not have much depth. The basalt and volcanic tuff do not extend to a substantial depth and the

and the character of the chalcedonic quartz may change beneath the basalt cap. In the volcanic tuff that is exposed, the chalcedonic quartz veining is absent and the average grade is only 0.05 oz./ton Au. If the chalcedonic quartz is underlain by opalized serpentine, the chances of finding mineable gold values would be greatly reduced. Another factor is the nature of the underlying Knoxville sediments, which are not exposed. If the zone of chalcedonic quartz changes character below the basalt, the amount of sediments beneath the zone would be important. The sediments appear to be a better host for gold mineralization than serpentine, as evidenced in the Wilbur Springs district.

An interesting possibility for gold in serpentine is found in an outcrop northwest of the Harrison Mine. There is quartz-rich opalized serpentine, which may be similar to the serpentine at depth at the Manhattan Mine. The opalization and chalcedonic quartz may represent different events, which increases the chances of finding the chalcedonic quartz zone at depth. Five samples were taken in the quartz-rich opalized serpentine which all contain gold ranging from trace amounts to 0.02 oz. Au/ton. All the samples in the district that have gold values contain the chalcedonic quartz veins or are silicified. If the chalcedonic quartz zone remains strong beneath the basalt cap, the significant gold values will probably continue regardless of the host.

My recommendations for further work include: more surface sampling to determine better average grades; underground mapping and sampling where possible to see if any information is available below the basalt flows and detailed surface mapping to further delineate the zone with significant gold values.

		Description		505							
R	RC	Green blocky argillite with limonite on fractures, high graded the limonite.		0	10.2	1	9	4			
R	RC	Green fine-grained graywacke with blebs of limonite.		0	10.9	1	<1	4			
R	RC	Selective sample of marcasite, approximately 95%, and cinnabar crystals.		.34	0	19	<1	12			
R	RC	Strongly bleached "detrital" serpentine.		0	1028	<1	<1	03			
R	RC	Sheared massive serpentine with locally abundant limonite staining.		0	19.9	<1	<1	16			
R	F	Selective sample of banded quartz-chalcedony and siliceous sinter.		0	1028	<1	<1	19			
R	RC	Selective sample of limonite fracture filling with sinter (siliceous?) material from sediments.		0	7.5	<1	<1	1			
R	RC	Selective sample of siliceous? sinter veinlets with some quartz and argillite fragments.		0	1645	<1	<1	2			
R	RC	Light gray altered argillite with traces of limonite and sinter.		0	1782	<1	<1	2			
R	D	Altered and bleached serpentine, locally brecciated, local limonite staining.		0	1.37	<1	<1	1			
R	RC	Altered serpentine, friable, slightly to moderately opalized.		0	10.9	1	30	39			
R	RC	Surface sinter deposit, siliceous and calcareous, in stream bed on top of stream sediment.		0	1028	<1	<1	1			
R	RC	Altered serpentine with abundant limonite.		0	4.1	1	<1				
R	RC	Altered serpentine, locally moderately opalized.		0	1439	4	400				

2284R	RC	Slightly altered serpentine from "chrome" pit with no chromite.	0	9.59	1
2285R	RC	Slightly to moderately opalized serpentine with minor discontinuous quartz veinlets.	0	15.8	2
2286R	RC	Highly weathered, argillized? volcanic with minor limonite staining.	0	1371	1
2287R	RC	Gray weathered graywacke with scattered limonite on fractures, high graded the limonite.	0	754	2
2288R	RC	Same as 2287R.	0	1308	1
2289R	RC	Gray weathered argillite with scattered limonite on fractures, high graded the limonite.	Tr	3428	2
2489R	RC	Opalite with some quartz, limonite staining.	0	185	
2492R	RC	Silicified serpentine? Franciscan Formation? with abundant quartz veining, green.	0	1577	
2493	F	Medium gray, silicified aphanitic volcanic with occasional discontinuous quartz veinlets, scattered limonite staining.	0	1234	
2494R	F	Gray basalt, scattered limonite staining probably after Fe silicates.	0	9.6	
2495R	F	Float? banded quartz-chalcedony and siliceous sinter, on top of overburden.	.34	1337	
9001X	RC	Strongly opalized serpentine with abundant limonite, locally abundant marcasite, pods of native sulfur, locally argillized with cinnabar veinlets, green chloritic? clays.	Tr	754	1

Rc	Opalite with abundant limonite, locally massive marcasite, locally abundant quartz veinlets to $\frac{1}{4}$ " local native sulfur and sinter, weak cinnabar veinlets.	0	44	1	<1
Rc	Argillite with quartz and carbonate veinlets with moderate to strong limonite staining, blocky fracturing with irregular limonite staining, trace fine disseminated sulfides.	0	1097	1	<1
Rc	Argillite with occasional quartz, carbonate and sinter veinlets, blocky fractures with irregular limonite staining with possible cinnabar.	0	549	1	<1
Rc	Argillite, blocky fractures with moderate limonite staining.	0	1782	5	<1
Rc	Brecciated serpentine with opaline quartz matrix, strong limonite staining, marcasite seams with weak cinnabar mineralization.	0	0	3	<1
Rc	Opalite with abundant sinter, occasional carbonate veinlets, moderate to strong limonite staining, native sulfur, weak cinnabar mineralization.	0	754	2	<1
Rc	Opalized serpentine with sinter, strong limonite staining, sporadic pods of sulfides, weak cinnabar mineralization.	0	1714	2	<1
Rc	Brecciated and opalized serpentine, locally strong limonite staining, occasional pods of sulfides, weak cinnabar mineralization.	0	960	4	<1
Rc	Opalite, weak limonite staining, 3-5% marcasite, possibly some pyrite and arsenopyrite.	Tr	1234	5	<1
Rc	Sheared, altered serpentine, "detrital", quartz veining in boulders and matrix, moderate limonite staining on fractures and in quartz veining.	Tr	1303	1	<1

		508			
9012X	RC	Opalite with sinter, weak limonite staining, trace fine disseminated sulfides, trace native sulfur.	0	1303	8 <1
9013X	RC	Opalite with abundant sinter, locally strong limonite staining, trace fine disseminated sulfides	0	549	3 <1
9015X	RC	Weakly serpentinized sediments with locally strong sinter veining, pods of green chloritic? clay.	0	480	1 <1
9016X	RC	Strongly altered serpentine with sinter veinlets and nodules of opal, weak limonite staining.	Tr	137	<1 <1
9017X	RC	Opalite with gossan material, minor sinter material, possible fault zone.	0	137	4 <1
9018X	RC	Breccia zone, mostly argillite with minor serpentine, locally strong limonite staining, minor ½" cross-cutting quartz veinlets with limonite.	0	4.8	2 <1
9019X	RC	Breccia zone, sediments and serpentine with abundant sinter in matrix, weakly banded aragonite.	Tr	1165	5 <1
9020X	RC	Same as 9019X with more banded aragonite.	0	3.4	<1
9021X	RC	Argillite with blocky fractures with traces of limonite staining.	0	1165	<1
9022X	RC	Argillite, locally argillized, limonite staining in fresh areas.	Tr	7.5	1

MINING

"The California Mining Association is dedicated to the advancement of responsible mining and the education of the public to the vital role of minerals and mining in our society."

Homestake Mining's McLaughlin Mine has received the "Joseph A. Holmes Certificate of Honor" for working 4,043,458 hours without a fatal accident or a permanent total disability.

According to a report in the mine's "Gold Piece" publication, the Metallurgical laboratory and Mine Engineering departments were "big contributors" toward the record by completing 10 years without a lost-time injury.

Mill Operations at McLaughlin Mine has also established a record of more than four years without a lost-time injury.

Safety and production statistics for 1995 through May show only one time actual lost-time accident and two injuries where medical

treatment occurred.

During that period, 5.252 million tons of ore were mined and 947,450 tons milled. In the same time frame, 91.3 ounces of gold were produced, the Gold Piece reported.

B JACK E. THOMPSON, JR.

Office: President and C.E.O. and Executive Vice President, Canada
Homestake Canada Ltd. Homestake Mining Company
1000-700 West Pender Street 650 California Street
Vancouver, B.C. V6C 1G8 San Francisco, CA 94108

Born: March 5, 1950, Havana, Cuba

Education:
1990 Financial Management Program, Stanford Graduate Business School
1987 Stanford Executive Program, Stanford Graduate Business School
1967 - 1971 B.S. Mining Engineering, University of Arizona

Work Experience:
1991 - date Homestake Canada Ltd. - President and C.E.O.
1988 - 1991 Homestake International Minerals Ltd. - President
1981 - 1988 Homestake Mining Co. - General Manager, McLaughlin Mine
1978 - 1981 Newmont Services, Ltd. - Resident Manager assigned to
Dawn Mining Company
1975 - 1978 Newmont Services, Ltd., assigned to Newmont Mines, Ltd.,
Granduc Operating Division
General Superintendent Production
Assistant to Manager
Director Industrial Relations
Director Safety and Training
Chief Engineer
1971 - 1975 Magma Copper Co., San Manuel Division
Assistant to General Mine Foreman
Assistant General Level Foreman
Level Foreman
Supervisor
Systems Engineer
Mine Engineer

Memberships:
Society Mining Engineers (1967 - date)
American Institute Mining Engineers (1967 - date)
Canadian Institute of Mining (1975 - date)
Association of Professional Engineers of B.C. (1975 - date)
Lake County Chamber of Commerce - Director (1983 - 1986)
Rotary International (1983 - 1988)
Lake County Historical Society (1983 - 1988)
Sierra Club (1982 - date)
Ducks Unlimited, Inc. (1983 - date)
American Philatelic Society (1964 - date)
Mining and Metallurgical Society of America (1984 - date)
Boy Scouts of America - Executive Board Silverado Council (1986-1988)
Redbud Health Services, Inc. - Board of Trustees (1986 - 1988)

Awards:
Eagle Scout (1965)
National Honor Society (1966), U.A. Alumni Association
Outstanding Senior Award (1971), Daniel C. Jacklin
Scholar (1967), Newmont Mining Corporation Scholarship (1968 - 70)
Who's Who of California (1986)

1995: A Year of Exploration & New Ventures

511

From Homestake Mining
Company Annual Report
1995 (first page only)

A Message From
JACK E. THOMPSON
President &
Chief Operating Officer

In the same way that our namesake mine became the cornerstone of our Company back in 1877, today's Homestake Mining Company is the foundation on which tomorrow's opportunities and visions will be realized.

This firm base is the legacy of our retiring Chief Executive Officer, Harry Conger, and the basis for our enthusiasm as we look to the future. As I traveled with Harry over the past two years, talking with shareholders across Europe, North America and Australia, I was reminded continually of the fortunate position we are in: financially solid, technologically innovative, socially responsible and possessing significant mining expertise – precisely the attributes that will be required to meet difficult challenges in the years ahead.

Our good fortune is the result of hard work in many areas. Over the past few years, for example, we have continually worked to reduce our operating costs and improve our operating margins. This included investing \$81 million in 1995 to modernize our equipment and create



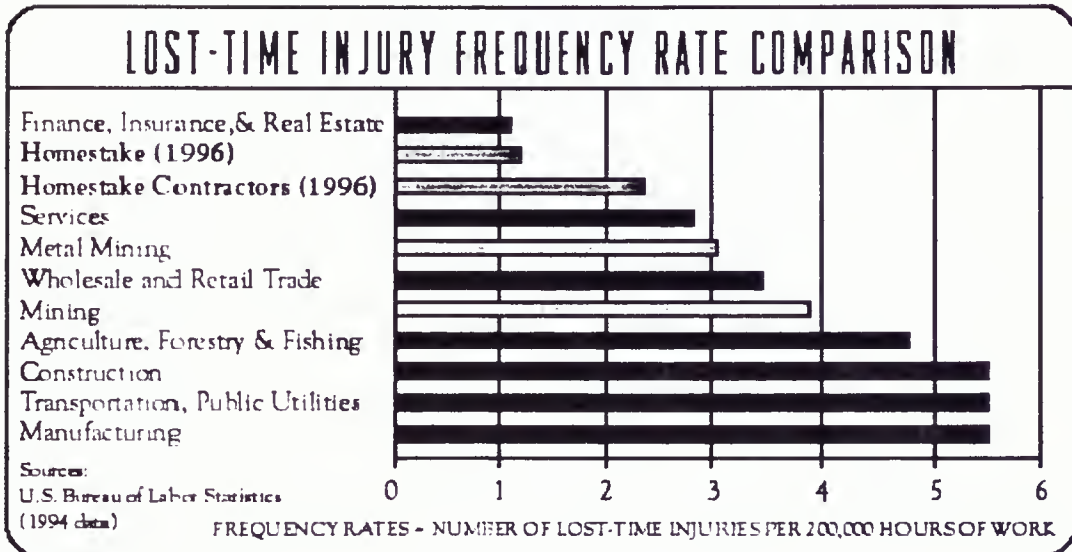
more efficient ways to operate at our mines. Despite production difficulties at three of our major mines during 1995, our total cash costs for the year were only 3% higher than the average for the last five years. Stabilizing our cost structure has allowed us to generate significant cash to fund a higher level of exploration and to consider several significant development projects.

In addition to a higher level of

spending for basic exploration, we funded feasibility studies for our Ruby Hill discovery in Nevada and evaluated possible projects in Russia and Bulgaria. Much of this increased activity can be attributed to the active work of an executive committee comprised of a core group of senior management that meets regularly to evaluate new opportunities quickly and expeditiously.

We continue to look at exploration opportunities around our existing mines as well, where infrastructure and capital are already in place. This has led to several successful and exciting findings in 1995. Company-wide, we now establish exploration priorities based upon a global ranking, thereby funding the best opportunities wherever they may be located. While the bulk of our work by far remains in North America and

from Homestake web page



C TWYLA THOMPSON

B4 May 29, 1983
S.F. Sunday Examiner & Chronicle

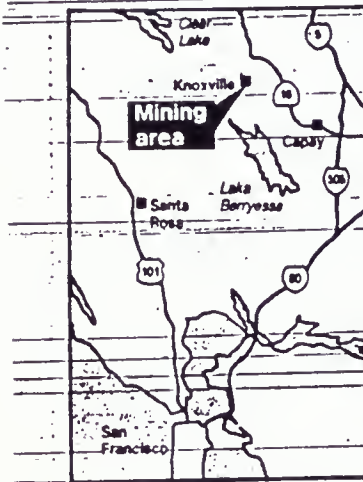
Environmental concerns stall gold rush of '83

By Mario Dianda

Examiner correspondent

WOODLAND — The gold miners of 1983 have run into a problem that never confronted the original Forty-niners: Environmentalists.

A small band of farmers is challenging the San Francisco-based mining firm that discovered gold in a remote



Examiner graphics

corner of Napa County in 1980. The farmers are concerned about the impact of the process that will be used to extract the metal.

Excavation of 32 million ounces of gold from a mile-long open-pit mine 2,000 feet wide and 700 feet deep still has not begun three years after the dramatic discovery was announced by Homestake Mining Co.

The site is 70 miles north and west of Sacramento in hills that converge at the juncture of Yolo, Napa and Lake counties. The nearest settlement is the former Napa County mining camp of Knoxville.

Opponents say cyanide, lead, mercury, sulphuric acid and other toxic substances Homestake would use to extract the gold could poison nearby streams and ground water.

And plumes of dust kicked into the air from dynamite explosions and dozens of bulldozers might carry hazardous levels of asbestos particles, they say.

The group brushes aside Homestake's contention that tales of the potential dangers are greatly exaggerated by pointing out that two Homestake mines in South Dakota and New Mexico were placed on the U.S. Environmental Protection Agency's list of hazardous waste sites last December.

The opponents are mostly small farmers who live in the Capay Valley, a few miles from the massive gold deposit. Supported by 500 petition signers, last week they persuaded the Yolo County Planning Commission to reject an environmental impact report on what Homestake calls its McLaughlin Project.

But Napa County, in which four-fifths of the mining would occur, has final say over the report because it was designated as lead review agency.

At 1:30 p.m. Wednesday, the Napa County Planning Commission will review the report and consider Yolo County's recommendation that it postpone approval pending the development of a comprehensive plan to monitor the area's water and air quality.

Until the report is approved, Homestake cannot apply for the various permits it needs to begin digging the mine and to construct a mill, reservoir and tailing pond.

Jack Thompson, resident general manager of the McLaughlin Project, said Homestake believes the monitoring plan should be developed after the report is approved. Otherwise, he said, Homestake might have to wait until next year to gear up for the mining.

Thompson said Homestake officials stand by the EIR, which gives the project a clean bill of health.

"We've worked very hard to design a facility that has multiple safeguards," he said.

But to Will Baker of Guinda, UC-Davis professor and part-time farmer, the giant pit is a big, ugly, dirty mine no matter how advanced the technology that they do the job with.



COUNTY OF YOLO

COMMUNITY DEVELOPMENT AGENCY
292 West Beamer Street
Woodland, CA 95695

June 22, 1983

The Honorable Jan Lowrey, Chairman
and Members of the Yolo County Planning Commission

Subject: Director's Report on Board Action on Code Amendment to Permit Private Reservoirs in the Agricultural Preserve (A-P) Zone

Dear Chairman Lowrey:

At a continued public hearing on June 21, 1983, the Board of Supervisors took the following actions in regard to the Planning Commission's report and recommendation on the Code Amendment to amend the Agricultural Preserve (A-P) Zone to permit private reservoirs in conjunction with mining operations. The Board moved to accept the report and recommendations of the Planning Commission, adopt the Ordinance as amended, direct County Counsel to prepare the proper Ordinance text for a second reading, and directed the Clerk of the Board of Supervisors to file a Notice of Determination on the Negative Declaration with the County Clerk.

By separate motion, Supervisor Thompson, with unanimous Board consent, directed the Planning Commission, in their review and consideration of a conditional use permit for the Homestake Mining project, to insure that all necessary monitoring and performance standards be a part of that process and established as a condition prior to the approval of any such conditional use permit and further that the Staff of the Community Development Agency be directed to instigate discussions with the Staff of the Homestake Mining Company to determine the extent and lodge the financial responsibility for any major natural event such as earthquakes, overtopping, seiches, or structural failure that would cause damage to either private or public and/or the natural environment.

Sincerely,

by *Edward A. Lowrey*

JEFF L. B. (BEN) HULSE
Director

JLBH:gjb

To: Honorable Betsy Marchand and Members of
the Board of Supervisors.

Subject: Rescind Ordinance 681-102

The pressure and hard work of gathering signatures for a referendum is now over and we can sit back and reflect on the Democratic Process. We obtained approximately 3500 signatures on the petition to either rescind Ordinance 681-102 or give Yolo County voters a chance to express their desires at the polls. Since this number of signatures was obtained by relatively few circulators in just 12 days, there is absolutely no doubt that the required number of 4600 could have been attained if the normal 30-day period had been permitted. We believe that the majority of Yolo County voters do favor the referendum and it is incomprehensible that county officials after admitting error and confusion would thwart the Democratic Process and deny voters the rights that are available to them under the law.

Although county officials may be smug about what was accomplished, I am sure that the voters see things differently. Yolo County has been a thriving agricultural community with extensive watershed areas, wide open spaces, healthy recreational areas and is generally regarded as a clean place to live and to raise families with minimal environmental pollution. This should not be seriously jeopardized. The arrival of a multinational mining corporation into our midst will not necessarily change our county - but it certainly can if we permit it to happen.

Page 2

As a farming community we generally face problems that are not highly sophisticated and actions taken are largely reversible if time and experience indicates that judgement has been hasty or poor in quality. The situation involving the proposed mining, grinding, milling and extraction of more than 100 million tons of earth is totally different. A hasty or poor decision cannot be reversed once the digging starts. County Officials are not used to dealing with large multinational organizations, oozing goodwill, offering tax money when budgets are low, flooding county offices with mountains of paper and intimidating officials with batteries of "technical" experts and lawyers. We are not given time to properly judge their proposals but rather are overwhelmed by "fast track" procedures that circumvent general plans and zoning ordinances, and jeopardize laws designed to protect agricultural lands.

How does one go about protecting our land and communities while accommodating large special interest groups? It is not easy !! It requires our county officials to apply a level of effort greater than anything that has been required of them in the past. This is especially true for those who represent Yolo County in EDAC which was set up as a tri-county committee to coordinate activities and set goals and policy. Yolo County has been seriously let down at this very critical period. Supervisor Thompson and Planner Hulse were assigned to represent Yolo County. According to the records, we had

Page 3

no county representation at all on at least two occasions and Supervisor Thompson failed to attend at least 10 of the first 12 meetings. When asked about her failure to attend Supervisor Thompson stated that the meetings were technical. This comes as a great surprise since our relationship with Supervisor Thompson has always been cordial and we had every reason to believe she was a capable administrator.

In the foreseeable future, Yolo County is going to be host to many new enterprises, bringing in new technologies some of which can co-exist with agricultural activities and some of which can not. Our county officials will be forced to cope with these new technologies. Avoidance is not a responsible action. Hasty decision based on incomplete information is not a responsible action. Permitting someone else to take the responsibility for making the decision is not a responsible action. Depriving citizens of due process is not a responsible action.

There is a deep distrust of Homestake Mining Company by a great many people who have not read the details of their proposal and/or who have not any direct contact with Homestake representatives. We believe that this distrust stems from a lack of faith in our county officials. They appear to be so enticed by the glitter of gold that may find its way into the county tax coffers and so taken with the charm of Homestake's officials that they cannot hear pleas for caution and cries of protest from their constituents. Stonewalling at this

page 4

time can only aggravate a bad situation and provide credibility to the concept that our supervisors do not respond to the desires and concerns of their constituents.

We plead with you once more - please reconsider and rescind Ordinance 681-102.

Yolo PALS

Preserve Agricultural Land Societ



MINING COMPANY

LOWER LAKE, CALIFORNIA 95457

UGHLIN MINE

P.O. BOX 1010

(916) 446-1029

(916) 446-1070

September 9, 1985

*FOR
REFERENCE*

Mr. Gene Roh
County Administrative Offices
625 Court Street, Room 202
Woodland, CA 95695

Dear Mr. Roh:

I greatly appreciate the opportunity to provide you and your Board of Supervisors with the following comments regarding the Board's upcoming consideration of the establishment of a technical committee to review the results of the McLaughlin Mine monitoring program.

By way of history, the establishment of a technical review committee was originally recommended by the firm of Brown and Caldwell. Brown and Caldwell conducted the review of Homestake's proposed monitoring program on behalf of Napa, Lake and Yolo Counties and the Bureau of Land Management. They suggested that this review and update of the monitoring program be conducted by a panel of independent experts retained by the three counties and the Solano Irrigation District (SID) (i.e. independent of proponent Homestake and of project opponents).

Brown and Caldwell further recommended that the panel consist of experts in the following disciplines:

1. Water Quality
2. Toxicology
3. Water Chemistry
4. Air Quality
5. Hydrogeology
6. Aquatic Ecology
7. Vegetation
8. Wildlife
9. Statistical Analysis

In the course of the permit hearings for the mine, the Yolo County planning Commission suggested that the panel also include a public representative.

Page Two
September 9, 1985

Staff from the three Counties and the BLM met in late September, 1984, to consider the establishment of the review panel. It was generally agreed to consult with all of the regulatory agencies having responsibility for the project and to determine the extent to which these agencies could provide the technical expertise recommended by Brown and Caldwell. It was concluded that a joint three County/BLM panel was desirable, but that public review of the panel's report and acceptance by each County would necessarily be independent. Napa County staff was assigned the responsibility of contacting the agencies and determining their willingness and ability to cooperate in the review process.

Napa Planning Department Staff conducted a careful and thorough analysis of three alternatives: alternative 1 - a panel of experts from private concerns; alternative 2 - a panel of experts from the applicable public agencies; and, alternative 3 - a mix of private and public sector experts.

On May 15, 1985, the Napa County Conservation, Development and Planning Commission approved the establishment of a review panel made up of public agency experts.

Expertise in water quality, toxicology, water chemistry and statistical analysis will be provided by the Regional and State Water Quality Control Boards, the California Department of Health Services and the Solano Irrigation District. Aquatic ecology and wildlife will be covered by the California Department of Fish and Game. The Bay Area Air Quality Management District will review air quality, while the Bureau of Land Management, the California Division of Mines and Geology and the California Native Plant Society will provide expertise in vegetation and reclamation.

Subsequently, Lake and Yolo Counties and the BLM were invited to join with Napa in this review process. Lake County and the BLM have agreed to accept Napa's invitation to participate in such a joint review.

The agencies conducting the review of the McLaughlin monitoring program have all agreed to participate. Documentation of the efforts producing this review process are attached.

It is our belief that Yolo County's participation in this joint effort with Napa and Lake Counties and the BLM has many distinct advantages and further, to proceed to establish a separate review process, will result in substantial disadvantages to Yolo County.

The review process as established makes available the entire resources of the state and regional agencies involved, not just nine individuals. Thus, if questions arise that require additional specialized expertise, it will be available. Few, if

Page Three
September 9, 1985

any, major consulting firms--let alone a group of nine individuals--could focus such substantial technical capability on the review effort.

The agencies providing the technical review already have the responsibility to watch over the McLaughlin Mine and to review the results of the monitoring program. In addition, Homestake is obligated to respond to their comments and requirements. To establish a different and separate review panel runs the risk of institutionalizing conflict and confusion. In the event the separate review panel reaches conclusions or makes recommendations different from those of the agencies, Homestake is caught in the middle.

This is not an unlikely occurrence as it is not unusual for technical experts to enter into professional and personal disagreements. An example of this occurred as a result of the Brown and Caldwell review of the monitoring program and the Yolo Board of Supervisors had to be called upon to resolve the dispute by dictating that the Air Pollution Control Officer would be the final authority on air quality matters.


Cooperation with the other Counties makes it much more likely that Yolo County's suggestions on the entire project be heard. A separate review panel will likely be effectively limited to reviewing and commenting on only Yolo County data, primarily the work of Dr. Goldman and the review of the Yolo/Solano Air Pollution Control District requirements.

The matter of public input to the review process is indeed important but separable from the technical review process. The other counties intend to use their existing procedures of Planning Staff and Planning Commission review and hearings.

In conclusion, Homestake strongly urges careful consideration of the alternative of participating with Lake and Napa Counties and the BLM in the joint technical review of the McLaughlin Mine monitoring program.

Thank you kindly for considering our input.

Sincerely,



Raymond E. Krauss
Environmental Manager

REK:gm

Attachments

YOLO COUNTY, CALIFORNIA

TO:

MEETING DATE: October 22, 1985

FILE: PLA 7
Homestake

Pla 16
Homestake

Entry No. 14

Minute Order No. 85-427: Appointed the following to the Yolo County Technical Review Panel:

- A. John Ceteras and E. Avery Tindell as Public Members.
- B. Daniel Chang as the Air Quality Member.
- C. Marvin Goldman as the Aquatic Ecology Member.
- D. John Fielden as the Hydrogeology Member.
- E. Philip Signor as the Statistical Analysis Member.
- F. Richard Burau as the Toxicology Member.
- G. Ken Rickerson as the Vegetation Member.
- H. Kent Strong as the Water Chemistry Member.
- I. Turid Reid as the Water Quality Member.
- J. Susan Sanders as the Wildlife Member.

MOTION: Cameron. SECOND: Pfanner. AYES: DeMars, Black, Marchand, Pfanner, Cameron.

Daily Democrat 3/22/94

10 years ago, 1984

After hearing words of praise and final appeals, the Yolo County Planning Commission approved the necessary permits, rezoning and reclamation plan for a gold mine in the Blue Ridge hills Wednesday. Homestake Mining Company's McLaughlin Project will face one of its last major obstacles April 10, when the Board of Supervisors makes the final decision on rezoning the land from an agricultural to a mining rating.

D AVERY TINDELL

Sacramento Bee, May 27, 1983

Yolo Rejects Mining Study, Asks Napa's Concurrence

The Yolo County Planning Commission early Thursday placed a potential stumbling block in the way of Homestake Mining Co.'s proposed mammoth gold-mining operation when it unanimously rejected a crucial environmental impact report.

The battle now shifts to Napa County, where that county's Planning Commission next Wednesday will review Yolo County's request that it, too, reject the report.

Napa County, in which four-fifths of the gold mining would occur, gets the last word on the report because it has been designated a lead review agency.

About 40 Yolo County residents — who waited out the six-hour public hearing that began Wednesday evening in Woodland — greeted the commission's action with applause.

The commission, concluding that the report does not go far enough to ensure that

water, air, crops and wildlife will be adequately protected from the proposed mining operation, said a comprehensive pollution monitoring plan should be developed before the report is approved.

The monitoring plan, commissioners said, should identify the pollutants to be monitored, name an independent party to monitor them, specify the frequency of inspections and spell out how the monitoring system is to be financed. It should incorporate the comments of citizens, commissioners added, and it should be acceptable to Yolo, Napa and Lake counties.

Homestake owns or has staked mineral rights to 60 square miles of hills where the three counties converge. The company proposes to dig an open pit one mile long and 700 feet deep near the ghost town of Knoxville, Napa County, and from it mine rock embedded with fine grains of gold.



COUNTY OF YOLO

COMMUNITY DEVELOPMENT AGENCY
292 West Beamer Street
Woodland, CA 95695

May 31, 1983

Jay Corley, Chairman
Napa County Planning Commission
1195 Third Street, Room 210
Napa, CA 94558

Dear Chairman Corley:

The Yolo County Planning Commission, with the following motion, found the Draft Final Environmental Report for Homestake Mining Company - MacLaughlin project to be inadequate at the May 25, 1983 special Yolo County Planning Commission public hearing:

"That the Planning Commission send all comments to Napa County as of May 25, 1983, and state that the EIR is inadequate, or that before certifying the EIR we request the monitoring program being emplaced and precised, that includes who is going to do it and what it contains; and that it has the acceptance of all three Counties. Also, the standards, who pays, and base line data."

It was the consensus of the Commission that performance standards and a detailed monitoring system (including assignment of enforcement capabilities) agreeable to Lake, Napa, and Yolo Counties, be in place prior to any permits being let. The Commission further agreed that the applicant (Homestake) should be aware, before any further action is taken, what will be required in terms of the monitoring system, who will be required to pay for it, and who will be entrusted with administration and enforcement.

The statement was made by one of our Commissioners that the EIR is meaningless without a concrete plan for realizing the mitigation measures as stated in the Final Draft, and the additional concerns delineated in the above motion.

In that vein, the Yolo County Planning Commission determined that if adequate responses to the written and verbal comments are prepared, and performance standards and a detailed monitoring system (including assignment of enforcement responsibilities and capabilities) are included in the Final EIR, that the EIR could be found to be adequate.

The Yolo County Planning Commission requests that adequate time be allowed for the public to review these standards and procedures; and that the public be given the opportunity to comment at public hearings.


Napa County Planning Commission
May 31, 1983
Page 2

Attached please find all written comments received on the Draft Final EIR, which should be included in the Final EIR with appropriate responses. In addition, comments related to environmental concerns expressed at the public hearing should also be included in the Final EIR. Those comments will be contained in minutes to be prepared by staff of Napa County.

Comments related to the effects of asbestos on air and water quality, and the effects of peak exposures, should be included in the Final EIR. Additionally, comments related to the effects of landslides and intrusion of materials resulting from landslides on both surface and sub-surface changes to the tailings ponds, the potential for water releases from the reservoir to improve water quality, the effect of concentration of heavy materials on vegetation, the effects of seepage of cyanide that is not recovered, the reliability of baseline data assumptions and models used, alternatives to disposal of hazard waste and the need to obtain better baseline data for toxic materials, and retention of a toxicologist to assist in the review of baseline data and establishment of a monitoring system, should also be included.

Thank you for your concurrent work and action on this matter. It has been a learning experience for the Planning Commissions of all three counties and their citizenry. I appreciate the diligence and responsibility reflected in your actions.

Very truly yours,



Jan Lowrey, Chairman
Yolo County Planning Commission

JL:vt
Attachments

cc: Supervisor Betsy A. Marchand
Supervisor Twyla Thompson
Supervisor George DeMars
Supervisor Clark Cameron
Supervisor Robert Black
Planning Commissioner Harold Turner
Planning Commissioner Gary Stone
Planning Commissioner Jack Dunlap
Planning Commissioner Linda Frost
Planning Commissioner Arthur Lawrence
Planning Commissioner Bryant Washburn
Robert Nyman, Acting County Administrative Officer
Charles Mack, County Counsel
Lee Humes, Assistant County Counsel
Ray Krauss, Homestake Mining
Yana Nordhav, Engineering-Science
Jim Hickey, Planning Director, Napa County
John Thayer, Planning Director, Lake County
James Goodfellow, FNAC

E JOHN TURNEY

AREA: 40 - OXIDATION

Client: McLAUGHLIN GOLD PROJECT

SHEET 59 OF 117

Project No.: 2414A

REV. REV. DATE

EQUIPMENT No.	QTY.	ITEM DESCRIPTION	H.P.	REF. DWG. No.	SPEC No.	P.O. No.	CONTRACT No.
40-005	1	SAMPLER, Process Area Primary: In-line with travelling cutter, pneumatic	--	40-11-001	M-29	M-029	C-2 (6)
40-006	1	SAMPLER, Process Area Secondary: vezin type	.25(V)	40-11-001	M-29	M-029	C-2 (6)
40-007	1	LABORATORY TABLE	--	40-11-001	REQ-M		C-2 (4)
40-008 -009	2	EMERGENCY SHOWER WITH EYEWASH	--	40-11-001	REQ-P	P-1017	C-2 (6)
40-011 thru -013	3	TANKS, Preoxidation: 59,000 gal capacity, 22 ft 6 in. dia x 22 ft 6 in. high, baffled, 316 L S.S., closed top	--	40-11-001 TDS-40-101 TDS-40-102 TDS-40-103	P-15	Field	C-2 (5)
40-021 thru -023	3	AGITATORS, Preoxidation Tank: Axial flow impeller, rubber covered impeller, 316 S.S., 3 operating	(3) 7.5	40-11-001	M-7	M-007	C-2 (5)
40-025	1	TANK, Dilution: 2 ft dia x 3 ft high mild steel	--	TDS-40-126	P-16B	P-016B	C-2 (6)
40-033	1	TANK, Preoxidation Thickener Feed: 5,700 gal capacity, 10 ft dia x 12 ft high, baffled, open top, 316 L S.S. with legs	--	40-11-001 TDS-40-110	P-16B	P-016B	C-2 (6)

EQUIPMENT LIST

AREA: 40 - OXIDATION

Client: McLAUGHLIN GOLD PROJECT

SHEET 60 OF 117

Project No.: 2414A

REV. REV. DATE

EQUIPMENT No.	QTY.	ITEM DESCRIPTION	H.P.	REF. DWG. No.	SPEC No.	P.O. No.	CONTRACT No.
40-034	1	AGITATOR, Preoxidation Thickener Feed Tank: Axial flow impeller, 316 S.S., rubber covered impeller	5	40-11-001	M-7	M-007	C-2 (6)
40-035	1	THICKENER, Preoxidation: 55 ft diam, 316 L S.S. walls, hi-rate type	--	40-11-002	M-61	M-061	C-2 (5)
40-036	1	MECHANISM, Preoxidation Thickener: Hi-rate type with lifting device, 316 L S.S.	10 .75(V)	40-11-002	M-61	M-061	C-2 (6)
40-037 -038	2	PUMPS, Preoxidation Thickener Underflow: Horizontal centrifugal pump, 730 gpm @ 26 ft tdh of 1.5 sp gr slurry. Rubber lined, stainless trim, variable speed drive, one operating, one standby	(2) 15	40-11-002 Base-13	P-1	P-001	C-2 (6)
40-043 -046 -047	3	WET CYCLONE SEPARATOR: S.S.	--	40-11-101	M-66	M-066	C-2 (6)
40-044 -056 -057	3	VENTURI SCRUBBER: Complete with connection to wet cyclone separator and liquid recirculation S.S.	--	40-11-101	M-66	M-066	C-2 (6)
40-045 -058 -059	3	STACK, Oxidation Area: 316 L S.S., 5 ft dia x 80 ft. overall height	--	40-11-101	M-66	M-066	C-2 (6)

20

20

20

AREA: 40 - OXIDATION

Client: McLAUGHLIN GOLD PROJECT

SHEET 61 OF 117

Project No.: 2414A

REV. REV. DATE

EQUIPMENT No.	QTY.	ITEM DESCRIPTION	H.P.	REF. DWG. No.	SPEC No.	P.O. No.	CONTRACT No.
40-048 -049 -050 -051 -052 -053	6	PUMP, Wet Cyclone Recirculation: Horizontal centrifugal, 100 gpm at 65 ft tdh of 1.02 sp.gr., alloy 20	(6) 5	40-11-101 Base 12	P-3	P-003	C-2 (6)
40-056 -057	2	VENTURI SCRUBBER: Complete with connection to wet cyclone separator and liquid recirculation S.S.	--	40-11-101	M-66	M-066	C-2 (6)
40-058 -059	1	STACK, Oxidation Area: 316 L S.S., 5 ft dia x 80 ft overall height	--	40-11-101	M-66	M-066	C-2 (6)
40-060	1	TANK, Preoxidation Thickener Underflow: 197,000 gal capacity, 32 ft diam x 35 ft high, baffled, open top, 316 L S.S.	--	40-11-006 TDS-40-112	P-15	Field	C-2 (5) 529
40-061	1	AGITATOR, Preoxidation Thickener Underflow Tank: Axial flow impeller, 316 S.S. rubber covered baffles	30	40-11-001	M-7	M-007	C-2 (6)
40-062 thru -065	4	PUMPS, Preoxidation Heat Exchanger Feed: Horizontal centrifugal, 475 gpm at 107 ft tdh of 1.38 sp gr slurry, chlorobutyl lined, stainless steel trim, variable speed, 3 operating 1 spare (spare not installed)	(4) 30	40-11-001	P-45	P-045	C-2 (6)

EQUIPMENT LIST

AREA: 40 - OXIDATION

Client: McLAUGHLIN GOLD PROJECT

Project No.: 2414A

SHEET 62 OF 117

REV. REV. DATE

EQUIPMENT No.	QTY.	ITEM DESCRIPTION	H.P.	REF. DWG. No.	SPEC No.	P.O. No.	CONTRACT No.
40-068	1	TANK, Preoxidation Thickener Overflow: 6,000 gal capacity, 8 ft x 12 ft x 7 ft high, 316 L S.S.	--	40-11-014 40-11-023	---	1089A	C-2 (6)
40-070 -071	2	PUMPS, Preoxidation Thickener Advance: vertical centrifugal 2560 gpm, 22 ft tdh, cast iron, rubber lined and covered, one operating, one standby	(2) 20	40-11-002	P-43	P-043	C-2 (6)
40-072	1	PUMP, Preoxidation Thickener Recycle: vertical centrifugal 1860 gpm, 31 ft tdh, cast iron, rubber lined and covered, one operating	25	40-11-002	P-43	P-043	C-2 (6)
40-073	1	TROLLEY & HOIST: 1 ton capacity	2	40-11-003	REQ-M	M-1013	C-2 (6)
40-080	1	OXIDANT MAKE-UP PACKAGE	.5(V) (2) 2(V) .75(V)	45-11-013	M-27	M-027	C-2 (6)
40-081	1	TANK, Oxidation Additive: 400 gal capacity 5 ft dia x 5 ft high, covered, 304L S.S., insulated	--	45-11-013 TDS-40-113	P-16B	P-016B	C-2 (6)
40-082 -083	2	PUMPS, Oxidation Additive: Progressive cavity, 0.2 gpm, at 58 ft tdh, VSD, 316 S.S., one operating, one standby	(2) .5(V)	45-11-013	P-21	P-021	C-2 (6)

AREA: 40 - OXIDATION

Client: McLAUGHLIN GOLD PROJECT

SHEET 63 OF 117

Project No.: 2414A

REV. REV. DATE

EQUIPMENT No.	QTY.	ITEM DESCRIPTION	H.P.	REF. DWG. No.	SPEC No.	P.O. No.	CONTRACT No.
40-086	1	EMERGENCY SHOWER WITH EYEWASH	--	Base-13 & -14	REQ-P	P-1017	C-2 (6)
40-091 thru -093	3	PUMPS, Autoclave Feed: Positive displacement diaphragm type, 400 gpm, 300 psig, 1.36 sp gr slurry, Alloy 20, wetted parts variable frequency motor drive.	(3) 150 (6) 2(V)	40-11-101	P-4	P-004A	C-2 (6)
40-120 -122 -124	3	TANKS, Agitator Seal Water Accumulator: 2 ft 6 in. dia x 6 ft high, 200 gal capacity, 350 psig design, 304 S.S.	--	TDS-40-115 40-11-101 TDS- TDS-	P-27	P-027	C-2 (6)
40-125 -126	2	FILTERS, Agitator Seal Water: In-line type, 15 gpm, 350 psig design	--	40-11-101 Base-13 & -14	REQ-P	P-1018	C-2 (6)
40-131 thru -134	4	FILTERS, Agitator Seal Water: In-line type, 15 gpm, 350 psig design	--	Base-13 & -14	REQ-P	P-1018	C-2 (7)
40-135 thru -137	3	HEAT EXCHANGER, Agitator Seal Water: Plate and Frame, stainless steel, 600,000 Btu/hr, 18.4 gpm capacity, insulated	--	40-11-101	P-20A	P-020A	C-2 (6)

EQUIPMENT LIST

AREA: 40 - OXIDATION

Client: McLAUGHLIN GOLD PROJECT

SHEET 64 OF 117

Project No.: 2414A

REV. REV. DATE

EQUIPMENT No.	QTY.	ITEM DESCRIPTION	H.P.	REF. DWG. No.	SPEC No.	P.O. No.	CONTRACT No.
40-140 -142 -144	3	TANKS, Agitator Seal Water: 300 gal capacity, 4 ft dia x 4 ft high, covered, mild steel	--	TDS-40-118 40-11-101 TDS- TDS-	P-16B	P-016B	C-2 (6)
40-150	1	PUMP, Barrel:	.5(V)		P-1016	P-1016	C-2 (6)
40-182 thru -187	6	PUMPS, Agitator Seal Water Booster: Vane type, 20 gpm, 350 psig, C.S., 3 operating, 3 standby	(6) 7.5(V)	40-11-101	P-1054	P-1054	C-2 (6)
40-190 thru -192	3	HEATER, Autoclave Vent: direct contact splash heater, 3 ft inside shell dia x 16 ft tangent to tangent high, 2:1 dished heads disk and doughnut baffles, 312 psig design, solid titanium construction, insulated	--	TDS-40-121 TDS-40-122 TDS-40-123 40-11-101	M-46	M-046	C-2 (6)
40-195	1	KNOCK OUT POT: Slurry	--	TDS-40-145	P-27 M-69	P-027	C-2 (6)
40-201 thru -203	3	AUTOCLAVES: Horizontal cylindrical, 13 ft 9-1/2 in. inside shell dia (12 ft 4-1/2 in. inside brick) x 53 ft 1-1/8 in. tangent to tangent, dished heads, four-48 in. nozzles for agitators, one-6 in. inlet, four-6 in. outlets, 3 compartment dividers, mixer baffles, carbon steel, brick and lead lined	--	40-11-101	M-39	M-039	C-2 (6)

AREA: 40 - OXIDATION

Client: McLAUGHLIN GOLD PROJECT

SHEET 65 OF 117

Project No.: 2414A

REV. REV. DATE

EQUIPMENT No.	QTY.	ITEM DESCRIPTION	H.P.	REF. DWG. No.	SPEC No.	P.O. No.	CONTRACT No.
40-205 thru -207	3	VESSELS: Autoclave Level: 2 ft inside shell dia x 12 ft overall high, brick	--	TDS-40-127 TDS-40-128 TDS-40-129	M-68	M-068	C-2 (6)
40-211 thru -214	4	AGITATORS, Autoclaves: Twin impeller, one radial, one axial, titanium blades and shaft with shaft seal, one spare	(4)50	40-11-101	M-40	M-040	C-2 (6)
40-215 thru -224	10	AGITATORS, Autoclaves: Single impeller, radial flow impeller, titanium blades and shaft with shaft seal, one spare	(10)30	40-11-101	M-40	M-040	C-2 (6)
40-226 thru -228	3	EMERGENCY SHOWER WITH EYEWASH	--	Base-11 & -12	REQ-P	P-1017	C-2 (6)
40-230 thru -232	3	HYDRAULIC PULLER ASSEMBLY: For agitators, autoclaves	--	40-11-101	M-40	M-040	C-2 (6)
40-241 thru -251	10	EMERGENCY SHOWER WITH EYEWASH	--	-- -- --	REQ-P	P-1017	C-2 (6)

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Davy McKee

DMC Engineers and Constructors

EQUIPMENT LIST

40 - OXIDATION

AREA:

Client: McLAUGHLIN GOLD PROJECT

SHEET 66 OF 117

Project No.: 2414A

REV. REV. DATE

EQUIPMENT No.	QTY.	ITEM DESCRIPTION	H.P.	REF. DWG. No.	SPEC No.	P.O. No.	CONTRACT No.
40-254	1	SUMP, Feed Pump Area:	--	40-11-100	---	---	C-2 (2)
40-255	1	PUMP, Feed Pump Floor Sump: Vertical centrifugal, 100 gpm at 50 ft. tdh, 1.1 sp. gr slurry, cast iron, chlorobutyl lined and covered	10	Base-13	P-5	P-005	C-2 (6)
40-260	1	SUMP, Preoxidation Area:	--	40-11-001	---	---	C-2 (6)
40-261	1	PUMP, Preoxidation Area Sump: Vertical centrifugal, 100 gpm at 34 ft tdh of 1.1 sp. gr slurry, cast iron, rubber lined and covered	7.5	Base-13	P-5	P-005	C-2 (6)
40-301 thru -303	3	VESSELS, No. 1 Flash: Vertical Cylindrical, 7 ft 2 in. inside shell dia, 11 ft 6 in. straight side, dished ends 2:1, carbon steel with 1/4 in. chlorobutyl rubber lining and 3 in. thick acid resistant brick lining	--	40-11-101 TDS-40-130 TDS-40-130 TDS-40-130	M-41	M-041	C-2 (6)
40-305 thru -307	3	VESSELS, No. 2 Flash: Vertical Cylindrical, 7 ft inside shell dia, 11 ft 6 in. straight side, dished ends, carbon steel with 1/4 in. chlorobutyl rubber lining and 3 in. thick acid resistant brick lining, 90 psig design	--	40-11-101 TDS-40-131 TDS-40-131 TDS-40-131	M-41	M-041	C-2 (6)

AREA: 40 - OXIDATION

Client: McLAUGHLIN GOLD PROJECT

Project No.: 2414A

SHEET 67 OF 117

REV. REV. DATE

EQUIPMENT No.	QTY.	ITEM DESCRIPTION	H.P.	REF. DWG. No.	SPEC No.	P.O. No.	CONTRACT No.
40-316 thru -318	3	HEATERS, No. 1 Slurry: Direct contact heater, 3 ft inside dia x 15 ft, disc and doughnut baffles, alloy 20, 3 in. insulation	--	40-11-101 TDS- TDS- TDS-	M-42	M-042	C-2 (6)
40-320 thru -322	3	HEATERS, No. 2 Slurry: Direct contact heater, 3 ft inside dia x 15 ft, dished ends disc and doughnut baffles, Alloy 20, 3" insulation	--	40-11-101 TDS-40-135 TDS-40-135 TDS-40-135	M-42	M-042	C-2 (6)
40-354 thru -356	3	PUMPS, No. 1 Slurry Heater: Horizontal centrifugal, 495 gpm at 58 ft tdh of 1.37 sp gr, chlorobutyl rubber lined, vsd, acid proof wetted parts, 3 operating	(3) 20	40-11-100	P-45	P-045	C-2 (6)
40-357	1	PUMP, No. 1 Slurry Heater: Horizontal centrifugal, 495 gpm at 58 ft tdh of 1.37 sp gr, chlorobutyl rubber lined, vsd, acid proof wetted parts, spare	20	Base-12	P-45	P-045	C-2 (6)
40-360	1	SUMP, Autoclave Area:	--	40-11-100	---	---	C-2 (2)
40-361	1	PUMP, Autoclave Area Sump: Vertical centrifugal, 100 gpm at 24 ft. tdh, 1.1 sp. gr slurry, cast iron, chlorobutyl lined and covered	7.5	Base-17	P-5	P-005	C-2 (6)

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EQUIPMENT LIST

AREA: 40 - OXIDATION

Client: McLAUGHLIN GOLD PROJECT

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EQUIPMENT No.	QTY.	ITEM DESCRIPTION	H.P.	REF. DWG. No.	SPEC No.	P.O. No.	CONTRACT No.
40-362	1	SUMP, Autoclave Area:	--	Base-11	---	---	C-2 (2)
40-363	1	PUMP, Autoclave Area Sump: Vertical centrifugal, 100 gpm at 22 ft. tdh, 1.1 sp. gr slurry, cast iron, chlorobutyl lined and covered	5	40-11-100	P-5	P-005	C-2 (6)
40-365	1	HOIST & TROLLEY: 1 ton capacity	5 (V) .5 (V)	40-11-103	REQ-M	M-1013	C-2 (6)
40-367	1	CRANE, Underhung: 1 ton capacity, 15 ft span, ___ ft lift, feed pumps area	6(V) (3).5(V)	40-11-103	M-9	M-009	C-2 (6)
40-368	1	CRANE, Top Running: 15 ton capacity, 77 ft 8-3/4 in. span, ___ ft lift, Autoclaves Area	20(V) 3.5 (V) 2.5/.75(V) (2)3.5(V)	40-11-103	M-9	M-009	C-2 (6)
40-369	1	CRANE, Underhung: 3 ton capacity, 24 ft span, ___ ft lift, flash tanks area	(2)5(V) (3).5(V)	40-11-103	M-9	M-009	C-2 (6)
40-370	Lot	VENT DUCTING: 316L S.S., with expansion joints	--	-- -- --	REQ-P		C-2 (6)
40-383	1	WATER TREATMENT PACKAGE UNIT: For boiler feed water, 100 gpm, Process Area	1/4(V)	40-51-009	P-36	P-036	C-2 (6)

AREA: 40 - OXIDATION

Client: McLAUGHLIN GOLD PROJECT

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EQUIPMENT No.	QTY.	ITEM DESCRIPTION	H.P.	REF. DWG. No.	SPEC No.	P.O. No.	CONTRACT No.
40-399	1	PACKAGE BOILER: 4,500 lb/hr steam, 350 psig, saturated steam, 400 psig design	--	40-51-009	P-23	P-023	C-2 (6)
40-400	1	PACKAGE BOILER: 25,500 lb/hr steam, 350 psig saturated steam, 400 psig design	--	40-51-009 Base 25	P-23	P-023	C-2 (6)
40-402 -403	2	PUMPS, Boiler feed water: Horizontal, multi-stage, 85 gpm at 963 ft tdh one operating and one standby	(2) 40(V)	40-51-009	P-23	P-023	C-2 (6)
40-405	1	PUMP, Boiler Feed Water: Horizontal centrifugal, 15 gpm, at 963 ft tdh	10(V)	40-51-009	P-23	P-023	C-2 (6)
40-406 -407	2	PHOSPHATE INJECTION PACKAGES: Complete with 55 gallon, carbon steel tank, agitator and two metering pumps	(2) .25(V)	40-51-009	P-23	P-023	C-2 (6)
40-408	1	SULFITE INJECTION PACKAGE: Complete with 55 gallon carbon steel tank, styrofoam cover, one metering pump	.25(V)	40-51-009	P-23	P-023	C-2 (6)
40-410	1	DEAERATOR:	--	40-51-009	P-23	P-023	C-2 (6)
40-414	1	BLOWDOWN DRUM:	--	40-51-009	P-23	P-023	C-2 (6)
40-415	1	BLOWDOWN HEAT RECOVERY SYSTEM: Flash tank with heat exchanger	--	40-51-009	P-23	P-023	C-2 (6)

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EQUIPMENT LIST

AREA: 40 - OXIDATION

Client: McLAUGHLIN GOLD PROJECT

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REV. REV. DATE

EQUIPMENT No.	QTY.	ITEM DESCRIPTION	H.P.	REF. DWG. No.	SPEC No.	P.O. No.	CONTRACT No.
40-416	1	STACK, Boiler: For Equipment No. 40-399	--	40-51-009	P-23	P-023	C-2 (6)
40-417	1	ECONOMIZER: For Equipment No. 40-399	--	40-51-009	P-23	P-023	C-2 (6)
40-419	1	ECONOMIZER: For Equipment No. 40-400	--	40-51-009	P-23	P-023	C-2 (6)
40-420	1	STEAM EXHAUST SILENCER: 20,000 lbs/hr	--	40-51-009	P-23	P-023	C-2 (6)
40-421 -422	2	FANS, Combustion Air: Integral with boiler, Equipment No. 40-399 and 40-400	5(V) 15(V)	40-51-009	P-23	P-023	C-2 (6)
40-423	1	STACK, Boiler: For Equipment No. 40-400	--	40-51-009	P-23	P-023	C-2 (6)
40-424	1	COMPRESSOR, Atomizing Air: For Equipment No. 40-400	5		P-23	P-023	C-2 (6) 538
40-430	1	SUMP, Boiler Area Floor:	--	40-51-009	--	--	C-2 (2)
40-431	1	PUMP, Boiler Area Floor Sump: Vertical centrifugal, 50 gpm at 76 ft tdk, cast iron	15	40-51-009	P-5	P-005	C-2 (6)
40-490	1	TANK, Blowdown Collection: 7600 gal capacity, 10 ft dia x 14 ft high, open top, mild steel	--	WDS-40-117	P-16B	P-016B	C-2 (6)
40-492	1	PUMP, Wet Cyclone Make-Up:	1		P-3	P-003	C-2 (6)



AREA: 40 - OXIDATION

Client: McLAUGHLIN GOLD PROJECT

Project No.: 2414A

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REV. REV. DATE

EQUIPMENT No.	QTY.	ITEM DESCRIPTION	H.P.	REF. DWG. No.	SPEC No.	P.O. No.	CONTRACT No.
40-600	Lot	STRUCTURE: Concrete floor with containment wall, steel platforms and pipe rack	--	-- -- --	---	---	C-2 (2)
40-601	1	BUILDING, Main Control and MCC:	--	40-23-009 40-23-011	---	---	C-2 (2)
40-602	Lot	STRUCTURE: Autoclave Feed Pumps	--	-- -- --	---	---	C-2(2,3)
40-603	Lot	STRUCTURE: Autoclave Area	--	40-23-011 thru -017 40-24-011 thru -020	---	---	C-2(2,3)
40-604	Lot	STRUCTURE: Boiler Area	--	40-24-001 40-23-008	---	---	C-2(2,3)
40-610	Lot	HVAC, see supplemental H&V Equip. List	--	-- -- --	---	---	C-2 (4)
40-700	Lot	PIPING	--	-- -- --	---	---	C-2 (7)
40-800	Lot	INSTRUMENTATION	--	-- -- --	---	---	C-2 (9)
40-900	Lot	ELECTRICAL	--	-- -- --	---	---	C-2 (8)
40-975	6	MOTOR CONTROL CENTERS: 600 A Bus, 480 V, 3 phase, 60 Hz, P40F, P40G, P40C, P40D, P40A and P40B	--	00-31-011 00-31-015 00-31-016	E-14 E-14 E-14	E-014	C-2 (8)

F PETER SCRIBNER

KNOXVILLE MINE (Formerly Excelsior, Redington, and Boston)

Location. M. D. M., T. 11 N., R. 4 W., Secs. 6 and 7. The Knoxville mine is located near the junction of Lake and Yolo Counties, in the extreme northern portion of Napa County. It is accessible by county road, about 21 miles southeast from Lower Lake.

Ownership. George E. Gamble, San Francisco, California.

Production History. 1862-1905, 1911-1912, 1915-1916, 1922, 1927-1936.

The Knoxville mine ranks fourth among the quicksilver mines of California, with a total recorded yield of 119,688 flasks to the close of 1936. Since the early 1900's, production from the Knoxville has been incidental compared to the great record made from 1862 to the turn of the century.

The mine was discovered accidentally while grading a road. The property was opened up in 1862, under the control of the X. L. C. R. Mining Company. During the first five years of operations, the production averaged about 1,800 flasks annually. The X. L. C. R. Company was reorganized as the Redington Quicksilver Company in 1867, and production immediately increased over 150 per cent. During the seventies, the Redington Company had a contract with the Comstock mines to supply them with 400 flasks a month. The mine has been owned by various interests since the Redington Company dissolved. The Boston Quicksilver Mining Company operated it for a number of years, and then sold to Fred Johnson, of Napa, in 1905. In 1918, Johnson sold the mine to the Berryessa Cattle Company (a subsidiary of the Associated Oil Company). The present owner, George E. Gamble, acquired the land in 1927 by purchase from the Berryessa Company. Productions then averaged about 700 flasks annually until the close of 1931. Production then began to decrease and finally ceased entirely in 1936.

General Geology. The mine is situated in a critical geological area, the detailed geology of which has not as yet been satisfactorily worked out. In general, the zone of ore deposition occurs on the contact between serpentine and Jurassic Knoxville sediments. This is the type locality for the Knoxville formation which is composed of shale, sandstone, and conglomerate. Northwest of the mine is a sheet of olivine basalt, the core of which forms a dike near a fault contact of serpentine and sediments. A heavy attrition gouge has been formed by fault movement and both the serpentine and shale are highly brecciated. Schuette³ believes that part of the basalt sheet, exposed to the north-

¹ Bradley, W. W., op. cit., p. 82.

² Schuette, C. N., Occurrence of quicksilver orebodies: Trans. A. I. M. E., p. 422, 1937.

³ Schuette, C. N., op. cit., p. 423.

west, originally extended over the present zone of mineralization. Mineral solutions then rose along the fault zone, but were trapped by the sheet of basalt and deposited cinnabar in the brecciated host rock below. Since that time erosion has worn away a great part of the orebody, leaving only the lowermost part.

Metacinnabar and cinnabar are closely associated with pyrite and marcasite in a black opaline gangue. The Knoxville district is the type locality for metacinnabar, which has probably been formed by acid surface waters and by sulphurous gases which redissolved some of the cinnabar, and which was then reprecipitated as the black mercuric sulphide.

Mine and Plant. The old mine workings have been discussed in literature that has been mentioned in the bibliography. Mr. Gamble did some development work in the mine, but the greater percentage of his production was from old dump material. Reduction equipment on the property consists of a 3-by 40-ft., 30-ton rotary furnace, a tile condensing unit, and a D retort.

Bibliography: State Mineralogist Reports I, p. 27; IV, p. 339; VI, p. 72; XI, p. 69; XII, p. 363; XIII, p. 599; XIV, p. 287; XXV, p. 230. Bulletins, 27, p. 76; 78, p. 82.

MANHATTAN MINE (Formerly Lake mine)

Location. M. D. M., T. 11 N., R. 4 W., NW $\frac{1}{4}$ Sec. 6; T. 11 N., R. 5 W., N $\frac{1}{2}$ Sec. 1; T. 12 N., R. 5 W., SW $\frac{1}{4}$ Sec. 36. This mine adjoins the Knoxville mine on the west, and is about 20 miles southeast of Lower Lake.

Ownership. Manhattan Quicksilver Mines Company. R. B. Knox, president. Last leased to Charles Wilson and W. N. Hickox of Monticello.

Production History. 1862-1877, 1884-1893, 1895-1905, 1916, 1927, 1938. —

Quicksilver was first noted on this property about the time the Knoxville mine began operations. The Manhattan operated in conjunction with the Knoxville for several years, reducing its ore in the Knoxville furnace. The mine was idle from 1877 to 1884, at which time it is reported to have been reopened, although production during the next few years is not definite. A Knox-Osborne fine-ore furnace was installed in the eighties or nineties, and this has never been replaced by a modern plant. The present company has owned the mine for many years, having acquired it prior to 1900. Since 1905, only a very few flasks of quicksilver have been recovered.

General Geology. The geology of this mine greatly resembles that of the Knoxville as the orebody is a northwestern extension of the Knoxville orebody.

Bibliography: State Mineralogist Reports I, p. 27; V, p. 95; VIII, p. 412; XI, p. 71; XII, p. 363; XIII, p. 598; XIV, p. 288; XXV, p. 235. Bulletins, 27, p. 81; 78, p. 86.

Quicksilver Mines Boom At Calistoga

**Five Properties
Opened Since Outbreak
Of European War**

NAPA, Dec. 16.—At least five quicksilver mines in the northern end of Napa County near Calistoga and Knoxville, have opened since the outbreak of the present European war.

Two mines near Calistoga, the Oat Mill mine and the old Helen mine, are in operation at present. H. W. Gould, general manager of the Oat Hill mine, has announced his mine is working 65 tons of ore per day and employing 20 men. M. North, superintendent of the Helen mine, said he was employing 19 men, opening up new territory beyond the old workings.

Harrison Brothers mine, near Knoxville, has been reopened with the installation of \$20,000 in new equipment and will be producing before the first of the year. The mine has been equipped with a rotary furnace, new condensers and a Deisel electric power plant. Vernon and Vincent Harrison, Morgan Valley, Lake County, own the mine, which has been idle since the war.

Knoxville mine, at one time the largest mercury mine in the world, is being reopened by George Gamble, of the soap manufacturing family, and Manhattan mine nearby, is being operated on a small scale by Charles Willson.

G WESTERN MINING IN THE TWENTIETH CENTURY ORAL HISTORY SERIES

PREFACE

The oral history series on Western Mining in the Twentieth Century documents the lives of leaders in mining, metallurgy, geology, education in the earth and materials sciences, mining law, and the pertinent government bodies. The field includes metal, non-metal, and industrial minerals. In its tenth year the series numbers thirty-five volumes completed and others in process.

Mining has changed greatly in this century: in the technology and technical education; in the organization of corporations; in the perception of the national strategic importance of minerals; in the labor movement; and in consideration of health and environmental effects of mining.

The idea of an oral history series to document these developments in twentieth century mining had been on the drawing board of the Regional Oral History Office for more than twenty years. The project finally got underway on January 25, 1986, when Mrs. Willa Baum, Mr. and Mrs. Philip Bradley, Professor and Mrs. Douglas Fuerstenau, Mr. and Mrs. Clifford Heimbucher, Mrs. Donald McLaughlin, and Mr. and Mrs. Langan Swent met at the Swent home to plan the project, and Professor Fuerstenau agreed to serve as Principal Investigator.

An advisory committee was selected which included representatives from the materials science and mineral engineering faculty and a professor of history of science at the University of California at Berkeley; a professor emeritus of history from the California Institute of Technology; and executives of mining companies. Langan Swent delighted in referring to himself as "technical advisor" to the series. He abetted the project from the beginning, directly with his wise counsel and store of information, and indirectly by his patience as the oral histories took more and more of his wife's time and attention. He completed the review of his own oral history transcript when he was in the hospital just before his death in 1992. As some of the original advisors have died, others have been added to help in selecting interviewees, suggesting research topics, and securing funds.

The project was presented to the San Francisco section of the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME) on "Old-timers Night," March 10, 1986, when Philip Read Bradley, Jr., was the speaker. This section and the Southern California section of AIME provided initial funding and organizational sponsorship.

The Northern and Southern California sections of the Woman's Auxiliary to the AIME (WAAIME), the California Mining Association, and the Mining and Metallurgical Society of America (MMSA) were early supporters. Later the National Mining Association became a sponsor. The

project was significantly advanced by a generous bequest received in November 1997 upon the death of J. Ward Downey, UC Berkeley alumnus and early member of the mining series advisory committee. His own oral history was completed in 1992. Other individual and corporate donors are listed in the volumes. Sponsors to date include nineteen corporations, four foundations, and 113 individuals. The project is ongoing, and funds continue to be sought.

The first five interviewees were all born in 1904 or earlier. Horace Albright, mining lawyer and president of United States Potash Company, was ninety-six years old when interviewed. Although brief, this interview adds another dimension to a man known primarily as a conservationist.

James Boyd was director of the industry division of the military government of Germany after World War II, director of the U.S. Bureau of Mines, dean of the Colorado School of Mines, vice president of Kennecott Copper Corporation, president of Copper Range, and executive director of the National Commission on Materials Policy. He had reviewed the transcript of his lengthy oral history just before his death in November, 1987. In 1990, he was inducted into the National Mining Hall of Fame, Leadville, Colorado.

Philip Bradley, Jr., mining engineer, was a member of the California Mining Board for thirty-two years, most of them as chairman. He also founded the parent organization of the California Mining Association, as well as the Western Governors Mining Advisory Council. His uncle, Frederick Worthen Bradley, who figures in the oral history, was in the first group inducted into the National Mining Hall of Fame in 1988.

Frank McQuiston, metallurgist for the Raw Materials Division of the Atomic Energy Commission and vice president of Newmont Mining Corporation, died before his oral history was complete; thirteen hours of taped interviews with him were supplemented by three hours with his friend and associate, Robert Shoemaker.

Gordon Oakeshott, geologist, was president of the National Association of Geology Teachers and chief of the California Division of Mines and Geology.

These oral histories establish the framework for the series; subsequent oral histories amplify the basic themes. After over thirty individual biographical oral histories were completed, a community oral history was undertaken, documenting the development of the McLaughlin gold mine in the Napa, Yolo, and Lake Counties of California (the historic Knoxville mercury mining district), and the resulting changes in the surrounding communities. This comprises forty-three interviews.

Future researchers will turn to these oral histories to learn how decisions were made which led to changes in mining engineering education, corporate structures, and technology, as well as public policy regarding minerals. In addition, the interviews stimulate the deposit, by interviewees and others, of a number of documents, photographs, memoirs, and other materials related to twentieth century mining in the West. This collection is being added to The Bancroft Library's extensive holdings. A list of completed and in process interviews for the mining series appears at the end of this volume.

The Regional Oral History Office is under the direction of Willa Baum, division head, and under the administrative direction of The Bancroft Library.

Interviews were conducted by Malca Chall and Eleanor Swent.

Willa K. Baum, Division Head
Regional Oral History Office

Eleanor Swent, Project Director
Western Mining in the Twentieth
Century Series

January 1998
Regional Oral History Office
University of California, Berkeley

Western Mining in the Twentieth Century Oral History Series

Interviews Completed, November 2000

Horace Albright, *Mining Lawyer and Executive, U.S. Potash Company, U.S. Borax, 1933-1962*, 1989

Samuel S. Arentz, Jr., *Mining Engineer, Consultant, and Entrepreneur in Nevada and Utah, 1934-1992*, 1993

James Boyd, *Minerals and Critical Materials Management: Military and Government Administrator and Mining Executive, 1941-1987*, 1988

Philip Read Bradley, Jr., *A Mining Engineer in Alaska, Canada, the Western United States, Latin America, and Southeast Asia*, 1988

Catherine C. Campbell, Ian and Catherine Campbell, *Geologists: Teaching, Government Service, Editing*, 1989

William Clark, *Reporting on California's Gold Mines for the State Division of Mines and Geology, 1951-1979*, 1993

John Robert Clarkson, *Building the Clarkson Company, Making Reagent Feeders and Valves for the Mineral Industry, 1935 to 1998*, 1999

Norman Cleaveland, *Dredge Mining for Gold, Malaysian Tin, Diamonds, 1921-1966; Exposing the 1883 Murder of William Raymond Morley*, 1995

James T. Curry, Sr., *Metallurgist for Empire Star Mine and Newmont Exploration, 1932-1955; Plant Manager for Calaveras Cement Company, 1956-1975*, 1990

Donald Dickey, *The Oriental Mine, 1938-1991*, 1996

J. Ward Downey, *Mining and Construction Engineer, Industrial Management Consultant, 1936 to the 1990s*, 1992

Warren Fenzi, *Junior Engineer to President, Director of Phelps Dodge, 1937 to 1984*, 1996

Hedley S. "Pete" Fowler, *Mining Engineer in the Americas, India, and Africa, 1933-1983*, 1992

James Mack Gerstley, *Executive, U.S. Borax & Chemical Corporation; Trustee, Pomona College; Civic Leader, San Francisco Asian Art Museum, 1991*

Robert M. Haldeman, *Managing Copper Mines in Chile: Braden, CODELCO, Minerec, Pudahuel; Developing Controlled Bacterial Leaching of Copper from Sulfide Ores; 1941-1993, 1995*

John F. Havard, *Mining Engineer and Executive, 1935-1981, 1992*

Wayne Hazen, *Plutonium Technology Applied to Mineral Processing; Solvent Extraction; Building Hazen Research; 1940-1993, 1995*

George Heikes, *Mining Geologist on Four Continents, 1924-1974, 1992*

Helen R. Henshaw, *Recollections of Life with Paul Henshaw: Latin America, Homestake Mining Company, 1988*

Homestake Mine Workers, Lead, South Dakota, 1929-1993, interviews with Clarence Kravig, Wayne Harford, and Kenneth Kinghorn, 1995

Lewis L. Huelsdonk, *Manager of Gold and Chrome Mines, Spokesman for Gold Mining, 1935-1974, 1988*

William Humphrey, *Mining Operations and Engineering Executive for Anaconda, Newmont, Homestake, 1950 to 1995, 1996*

Hugh C. Ingle, Jr., *Independent Small Mines Operator, 1948 to 1999; Corona Mine, 2000*

James Jensen, *Chemical and Metallurgical Process Engineer: Making Deuterium, Extracting Salines and Base and Heavy Metals, 1938-1990s, 1993*

Arthur I. Johnson, *Mining and Metallurgical Engineer in the Black Hills: Pegmatites and Rare Minerals, 1922 to the 1990s, 1990*

G. Frank Joklik, *Exploration Geologist, Developer of Mt. Newman, President and CEO of Kennecott, 1949-1996; Chairman, Salt Lake 2002 Olympic Winter Games Committee, 1997*

Evan Just, *Geologist: Engineering and Mining Journal, Marshall Plan, Cyprus Mines Corporation, and Stanford University, 1922-1980, 1989*

Robert Kendall, *Mining Borax, Shaft-Freezing in Potash Mines, U.S. Borax, Inc., 1954-1988, 1994*

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Anderson, James, "Homestake Vice President-Exploration"

Baker, Will, "Citizen Activist, Yolo County"

Birdsey, Norman, "Metallurgical Technician, McLaughlin Process Plant"

Bledsoe, Brice, "Director, Solano Irrigation District"

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- Cerar, Anthony, "Mercury Miner, 1935-1995"
- Ceteras, John, "Organic Farmer, Yolo County"
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- Corley, John Jay, "Chairman, Napa County Planning Commission, 1981 to 1985"
- Cornelison, William, "Superintendent of Schools, Lake County" (Includes an interview with John A. Drummond, Lake County Schools Attorney)

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- Crouch, David, "Homestake Corporate Manager-Environmental Affairs"
- Enderlin, Elmer, "Miner in Fifty-Eight Mines"
- Fuller, Claire, "Fuller's Superette Market, Lower Lake"
- Goldstein, Dennis, "Homestake Corporate Lawyer"
- Guinivere, Rex, "Homestake Vice President-Engineering"

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- Hanchett, Bonny Jean, "Owner and Editor, Clearlake Observer, 1955-1986"
- Hickey, James, "Director of Conservation, Development, and Planning for Napa County, 1970 to 1990"
- Jago, Irene, "The Jagos of Jago Bay, Clear Lake"
- Jonas, James, "Lake County Fuel Distributor"
- Koontz, Dolora, "Environmental Engineer, McLaughlin Mine, 1988-1995"

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- Kritikos, William, "Operator, Oat Hill Mine"
- Landman, John, "Rancher, Morgan Valley"
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- Robert McKenzie, "McKenzies in Monticello, Berryessa Valley"
- Harold Moskowite, "Napa County Supervisor"
- Marion Onstad, "Neighbor and Employee of the McLaughlin Mine, 1980-1995"
- Ronald Parker, "Resident Manager of the McLaughlin Mine, 1988-1994"
- Richard Stoehr, "Homestake Engineer and Geologist to Senior Vice-President and Director"
- Joseph Strapko, "Exploration Geologist, McLaughlin Mine Discovery, 1978"

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Jack Thompson, "General Manager, McLaughlin Mine, 1981-1988"

Twyla Thompson, "County Supervisor, Yolo County, 1975-1985"

Avery Tindell, "Capay Valley Environmentalist"

John Turney, "McLaughlin Metallurgist: Pioneering Autoclaving for Gold"

Della Underwood, "Knoxville Rancher, McLaughlin Mine Surveyor"

Walter Wilcox, "County Supervisor, Lake County, 1979-1995"

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Frank Woods McQuiston, Jr., *Metallurgist for Newmont Mining Corporation and U.S. Atomic Energy Commission, 1934-1982*, 1989

Gordon B. Oakeshott, *The California Division of Mines and Geology, 1948-1974*, 1988

James H. Orr, *An Entrepreneur in Mining in North and South America, 1930s to 1990s*, 1995

Vincent D. Perry, *A Half Century as Mining and Exploration Geologist with the Anaconda Company*, 1991

Patrick Purtell, *Maintenance and Management at the McLaughlin Mine, 1985 to 1997*, 1999

Carl Randolph, *Research Manager to President, U.S. Borax & Chemical Corporation, 1957-1986*, 1992

John Reed, *Pioneer in Applied Rock Mechanics, Braden Mine, Chile, 1944-1950; St. Joseph Lead Company, 1955-1960; Colorado School of Mines, 1960-1972*, 1993

Joseph Rosenblatt, *EIMCO, Pioneer in Underground Mining Machinery and Process Equipment, 1926-1963*, 1992

Eugene David Smith, *Working on the Twenty-Mule Team: Laborer to Vice President, U.S. Borax & Chemical Corporation, 1941-1989*, 1993

Simon Strauss, *Market Analyst for Non-ferrous Metals and Non-metallic Minerals, Journalist, Mining Corporation Executive, 1927-1994*, 1995

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